

CODE ANALYSIS

APPLICABLE CODES			
	Year		Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006	Uniform Code for	
International Plumbing Code	2006	Building Conservation	
International Fire Code	2006	ADA Accessibility	
International Energy		Guidelines	
Conservation Code	2006		

A. Occupancy and Group: EXISTING CENTRAL BOILER PLANT

Change in Use: Yes No X Mixed Occupancy: Yes No X
Special Use and Occupancy (e.g. High Rise, Covered Mall): BOILER PLANT

B. Seismic Design Category: Design Wind Speed: N/A mph

C. Type of Construction (circle one): CENTRAL BOILER PLANT - CONCRETE/BRICK
I I II II III III IV V V
A B A B A B HT A B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: N/A South: N/A East: N/A West: N/A

E. Mixed Occupancies: X Nonseparated Uses: N/A

F. Sprinklers: NOT PROVIDED - BOILER PLANT
Required: N/A Provided: N/A Type of Sprinkler System: N/A

G. Number of Stories: TWO Building Height: 27' FT.

H. Actual Area per Floor (square feet): 143 Sq. FT. UPPER OFFICES/3933 Sq. FT. MAIN

I. Tabular Area:

J. Area Modifications: NONE

a) $A_a = A_t + \left[\frac{A_t I_t}{100} \right] + \left[\frac{A_t I_s}{100} \right]$ $I_t = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:
 $\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:
1) One Story: _____
2) Two Story: $A_a(2)$ _____
3) Three Story: $A_a(3)$ _____

d) Unlimited Area Building: Yes No Code Section: _____

K. Fire Resistance Rating Requirements for Building Elements (hours). N/A

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls			Floors - Ceiling Floors		
Interior Bearing Walls			Roofs - Ceiling Roofs		
Exterior Non-Bearing Walls			Exterior Doors and Windows		
Structural Frame			Shaft Enclosures		
Partitions - Permanent			Fire Walls		
Fire Barriers			Fire Partitions		
			Smoke Partitions		

L. Design Occupant Load: TWO LARGE ROLL UP DOORS 11'x12'. THREE
Exit Width Required: Exit Width Provided: MAN DOORS- 3'-0"

M. Minimum Number of Required Plumbing Facilities:
a) Water Closets - Required (m) 1 (f) 1 Provided (m) 1 (f) 1
b) Lavatories - Required (m) 1 (f) 1 Provided (m) 1 (f) 1
c) Bath Tubs or Showers: 1-BOILER ROOM
d) Drinking Fountains: TWO Service Sinks: 1

FOOTNOTES:
1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.
2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

SOUTHERN UTAH UNIVERSITY
HEAT PLANT CATWALK SYSTEM AND
STEAM TUNNEL EMERGENCY LIGHTING
DFCM #08110730

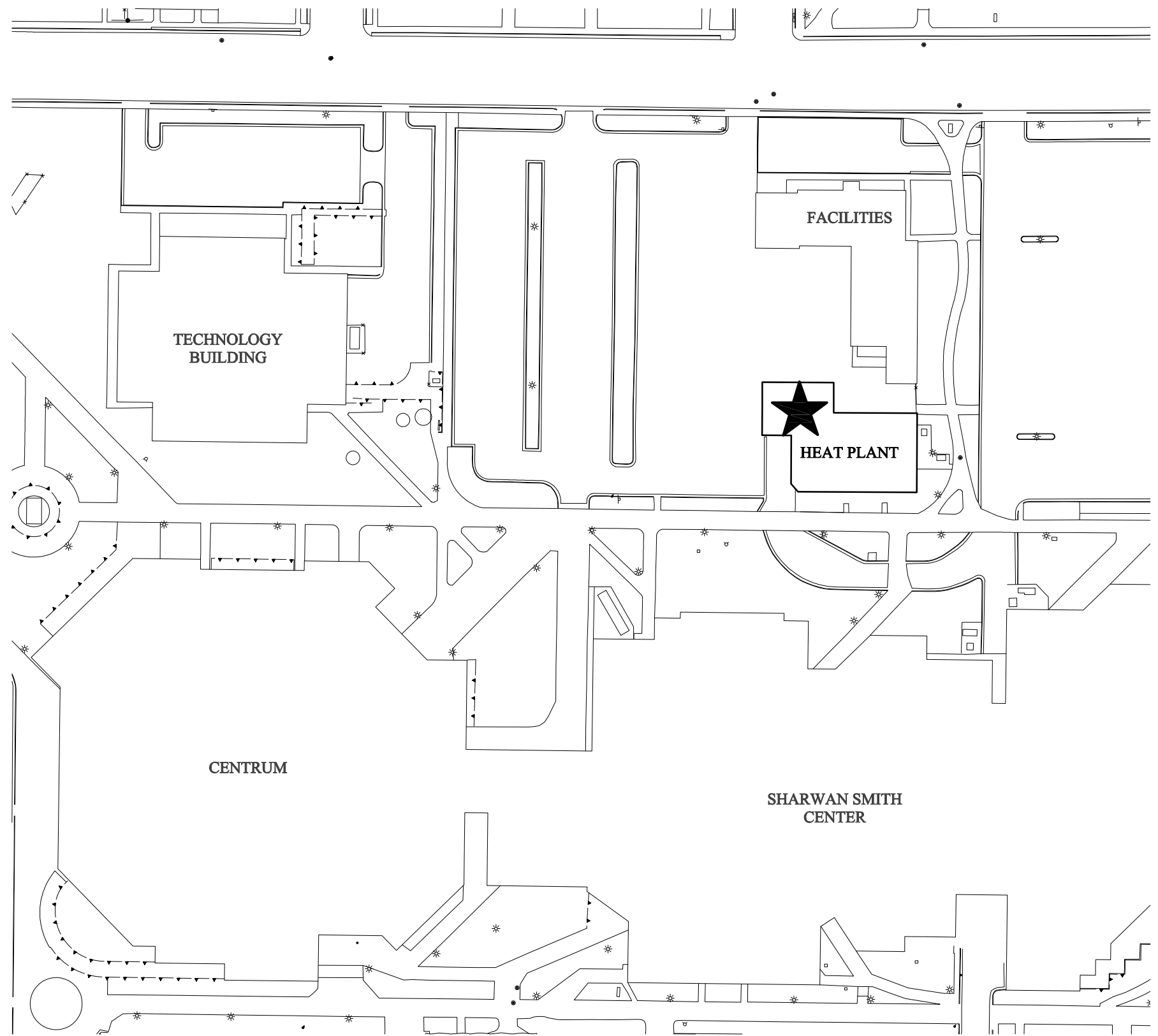
NOTE:
PROJECT DOES NOT IMPACT
OR ADD TO THE EXISTING BUILDING
OR TUNNEL. THIS PROJECT SHALL
UPGRADE THE SAFETY FOR MAINTENANCE WORKERS
BY ADDING ACCESS CATWALKS IN THE BOILER
PLANT AND EMERGENCY LIGHTING IN
THE EXISTING STEAM TUNNEL.



State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION
AND MANAGEMENT

4110 State Office Building / Salt Lake City, Utah 84114 / 538-3018



DRAWING INDEX:

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SE001--GENERAL STRUCTURAL NOTES
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ME101- CATWALK PLAN
ME501- MECHANICAL DETAILS
ME502- MECHANICAL DETAILS
ME503- MECHANICAL DETAILS
E101----STEAM TUNNEL ELECTRICAL SITE PLAN
E401----TUNNEL SECTION LIGHTING PLAN
E402----TUNNEL SECTION LIGHTING PLAN

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E

D

C

B


A

SPECIAL INSPECTIONS REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBS REFERENCE
1. Material verification of high-strength bolts, nuts, and washers: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. manufacturer's certificate of compliance required.	-	X	Applicable ASTM material specifications; AISC ASD, Section A3.4; AISC LRFD, Section A3.3	-
2. Inspeification of high-strength bolting: a. bearing-type connections.	-	X	AISC LRFD Section m2.5	1704.3.3
3. Material verification of structural steel: a. Identification markings to conform to ASTM standards specified in the approved construction documents. b. Manufacturer's certified mill test reports.	-	-	ASTM A 6 or ASTM A 568 ASTM A 6 OR ASTM A 568	1708.4
4. Material verification of weld filler materials: a. Identification markings to conform to AWS specification in the approved construction documents. b. Manufacturer's certificate of compliance required.	-	-	ATSC, ASD, Section A3.6; AISC LRFD, Section A3.5	-
5. inspection of welding: a. Structural steel 1) Complete and partial penetration groove welds. 2) Multi-pass fillet welds. 3) Single-pass fillet welds > $\frac{5}{16}$ ". 4) Single-pass fillet welds < $\frac{5}{16}$ ".	X X X	X	AWS D1.1	1704.3.1
6. inspection of steel frame joint details for compliance with approved construction documents: a. Details such as bracing and stiffening. b. Member locations. c. Application of joint details at each connection.	-	X	-	1704.3.2

MECHANICAL LEGEND		
SYMBOL	ABR.	DESCRIPTION
GENERAL TERMINOLOGY		
		SECTION LETTER DESIGNATION
		SECTION DRAWN ON THIS SHEET
		DETAIL NUMBER DESIGNATION CORRESPONDING WITH GRID LOCATION
		MECHANICAL EQUIPMENT DESIGNATION
		EQUIPMENT ITEM DESIGNATION
		REVISION DESIGNATOR AND NUMBER
		KEY NOTE DESIGNATOR AND NUMBER
	POC	POINT OF CONNECTION
	POR	POINT OF REMOVAL
	AFF	ABOVE FINISHED FLOOR
	CL EL	CENTER LINE ELEVATION
	GC	GENERAL CONTRACTOR
	MC	MECHANICAL CONTRACTOR
	EC	ELECTRICAL CONTRACTOR
	NIC	NOT IN CONTRACT
	NTS	NOT TO SCALE
	C	COMMON

- GENERAL NOTES:
- G-1** MECHANICAL AND STRUCTURAL INFORMATION IS NOT LIMITED TO THE MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INFORMATION ON ALL OTHER CONSTRUCTION DOCUMENTS INCLUDING DRAWINGS BY OTHER DISCIPLINES AND SPECIFICATIONS.
- A - EACH DRAWING SHEET AND THE SPECIFICATIONS HAVE BEEN PREPARED TO SUPPLEMENT EACH OTHER AND THEY SHALL BE INTERPRETED AS AN INTEGRAL UNIT WITH ITEMS SHOWN AND NOTED ON ONE AND NOT THE OTHER BEING FURNISHED AND INSTALLED AS THOUGH SHOWN AND CALLED OUT IN BOTH PLACES. ITEMS IN SPECIFICATIONS OR DRAWINGS LISTED WHICH ARE DIFFERING IN EFFICIENCY OR QUALITY SHALL BE HELD TO THE GREATEST OF: EFFICIENCY, QUALITY OR GOVERNING CODE.
- B - THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE INSTALLATION OF THE SYSTEMS ACCORDING TO THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS.
- C - ANYTHING NOT CLEAR OR IN CONFLICT WILL BE EXPLAINED BY MAKING APPLICATION TO THE ENGINEER IN WRITING.
- G-2** CONTRACTOR AFTER VIEWING THE ACTUAL CONDITIONS AND ALONG WITH THE OWNERS RECOMMENDATIONS, SUBMIT ALTERNATES IF THERE IS A BETTER WAY. ANY AND ALL ALTERATIONS TO THE SYSTEM SHOWN SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO CHANGES FOR APPROVAL. CONTRACTOR SHALL NOT START ANY CHANGES UNTIL NOTIFIED IN WRITING. IF CHANGES ARE MADE PRIOR TO APPROVAL CONTRACTOR SHALL TAKE ALL RESPONSIBILITY FOR THE CHANGES MADE AND ALL COSTS RELATING TO FAILURE OR REPLACEMENT OF ALTERATIONS.
- G-3** CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LOCATIONS.
- G-4** THE WORKING DRAWINGS ARE DIAGRAMMATIC. THEY DO NOT SHOW EVERY NECESSITY TO COMPLETE THE INSTALLATION SHOWN. ALL LOCATIONS FOR CATWALKS SHALL BE FIELD VERIFIED AND COORDINATED BETWEEN WHATS SHOWN ON THE DRAWINGS AND WHAT OBSTRUCTIONS MAY BE IN THE WAY. CONTRACTOR IS ALLOWED SOME LATITUDE IN LOCATING AND INSTALLING CATWALKS FOR VALVE ACCESSES. HE MUST FOLLOW PROCEDURES NOTED IN NOTE G-2 ABOVE.
- G-5** THE INSTRUCTION TO "PROVIDE" ALSO INCLUDES INSTALLATION.
- G-6** SUPPLIERS SHALL REVIEW ALL DRAWINGS AND THE SPECIFICATIONS PRIOR TO SUBMITTING PRICES TO THE CONTRACTOR. ALL QUESTIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO BIDDING.
- G-7** CONTRACTOR SHALL THOROUGHLY REVIEW AND SIGN SUBMITTALS FOR COMPLETENESS AND COMPLIANCE TO THE SPECIFICATIONS PRIOR TO ENGINEERS REVIEW. SUPPLIERS SHALL HIGHLIGHT OR MARK ALL INFORMATION REQUIRED TO SHOW COMPLIANCE TO THE SPECIFICATIONS. ALL REQUESTED EXCEPTIONS TO THE SPECIFICATIONS, OR SCHEDULES SHALL BE CLEARLY NOTED AND EXPLAINED. SUBMITTAL REVIEW AND ACCEPTANCE IS FOR DESIGN CONCEPT ONLY, AND DOES NOT AT ANY TIME RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO MEET SPECIFICATIONS, CAPACITIES, OR DESIGN INTENT.
- G-8** ALL CONSTRUCTION SHALL BE INSTALLED AND CONFORM TO THE 2006 EDITION OF THE IMC AND IBC WITH UTAH ANNOTATIONS AND LOCAL AUTHORITY REQUIREMENTS.
- G-9** ALL STEEL AND MATERIALS, ETC. SHALL BE NEW AND DOMESTIC MADE UNLESS SPECIFICALLY AUTHORIZED IN WRITING PRIOR TO BID.

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Department of Administrative Services



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PROJECT NAME & ADDRESS

**SUU HEAT PLANT
CATWALK SYSTEM
AND STEAM TUNNEL
EMERGENCY
LIGHTING
DFCM #08110730**

Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER:
WP


DRAWN BY:
LGD

CHECKED BY:
SLW

DATE:
03/25/09

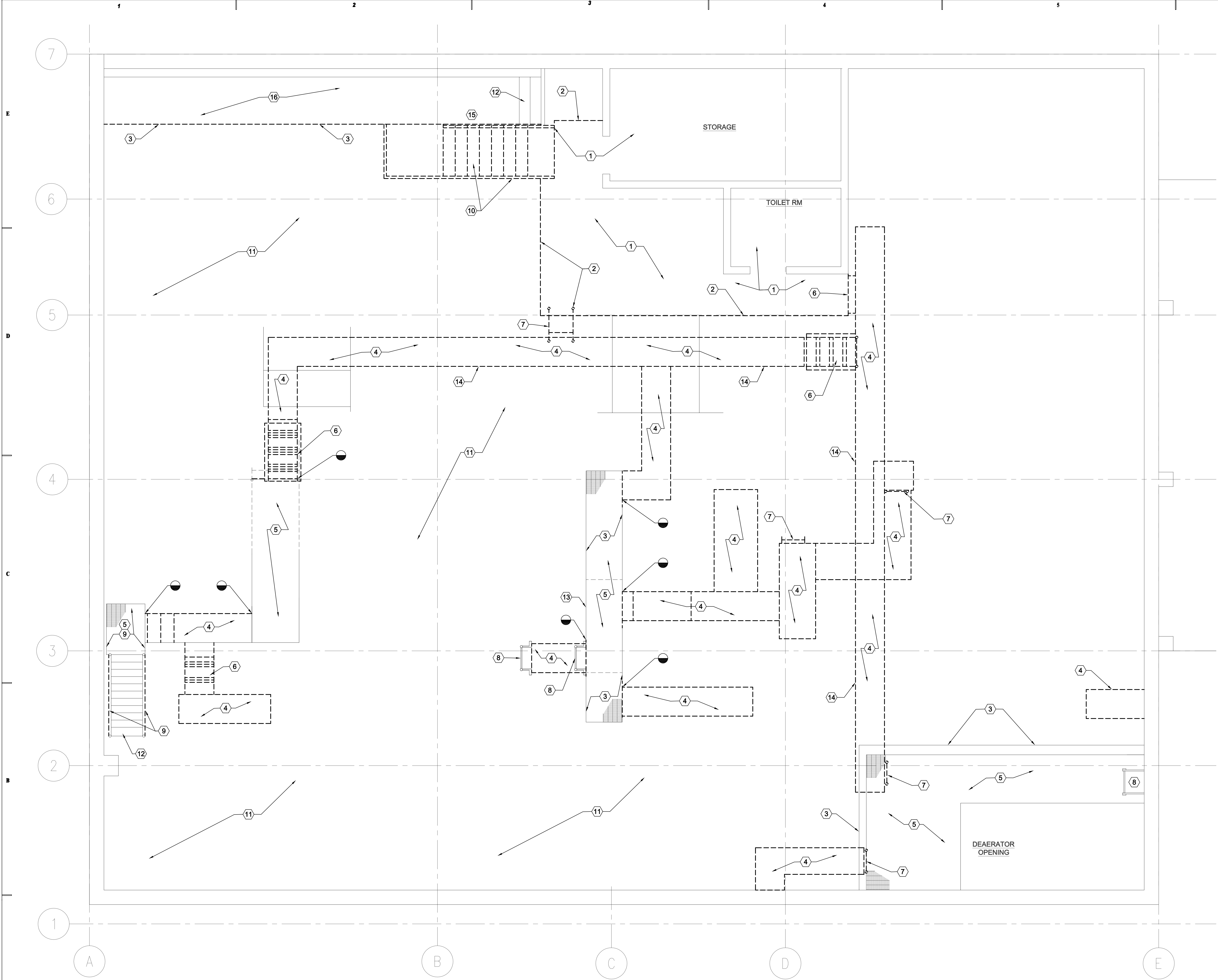
WHW JOB NO.:
08017

SHEET TITLE



**MECHANICAL GENERAL
NOTES AND LEGEND**

SHEET NO.
MG001



- SHEET NOTES:
- 1 EXISTING WOOD DECK SHALL REMAIN.
 - 2 REMOVE EXISTING WOOD HANDRAIL, LADDER ETC.
 - 3 REMOVE EXISTING STEEL HANDRAILS FROM EXISTING CATWALKS. CATWALKS SHALL REMAIN.
 - 4 REMOVE EXISTING CATWALK, HANDRAILS, SUPPORTS AND ALL ITEMS ASSOCIATED WITH CATWALKS.
 - 5 EXISTING CATWALKS ONLY SHALL REMAIN.
 - 6 REMOVE EXISTING STAIRS.
 - 7 REMOVE EXISTING LADDERS.
 - 8 EXISTING LADDER SHALL REMAIN.
 - 9 REMOVE EXISTING HANDRAILS FROM EXISTING STAIRS AND LANDINGS. STAIRS SHALL REMAIN.
 - 10 REMOVE EXISTING WOOD STAIRS, HANDRAILS ETC.
 - 11 EXISTING BOILER ROOM FLOOR.
 - 12 EXISTING STAIRS SHALL REMAIN.
 - 13 EXISTING CATWALK UNDER UPPER CATWALKS SHALL REMAIN. REMOVE HANDRAILS FROM EXISTING CATWALKS.
 - 14 ALL PIPING ETC. SUPPORTED FROM EXISTING REMOVED CATWALKS SHALL BE SUPPORTED BY OTHER MEANS. COORDINATE WITH ENGINEER.
 - 15 REMOVE EXISTING HANDRAILS FROM METAL STAIRS TO BOILER ROOM FLOOR.
 - 16 EXISTING 3'-6" CATWALK SHALL BE REMOVED.

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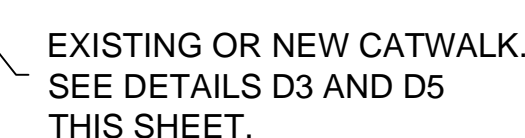
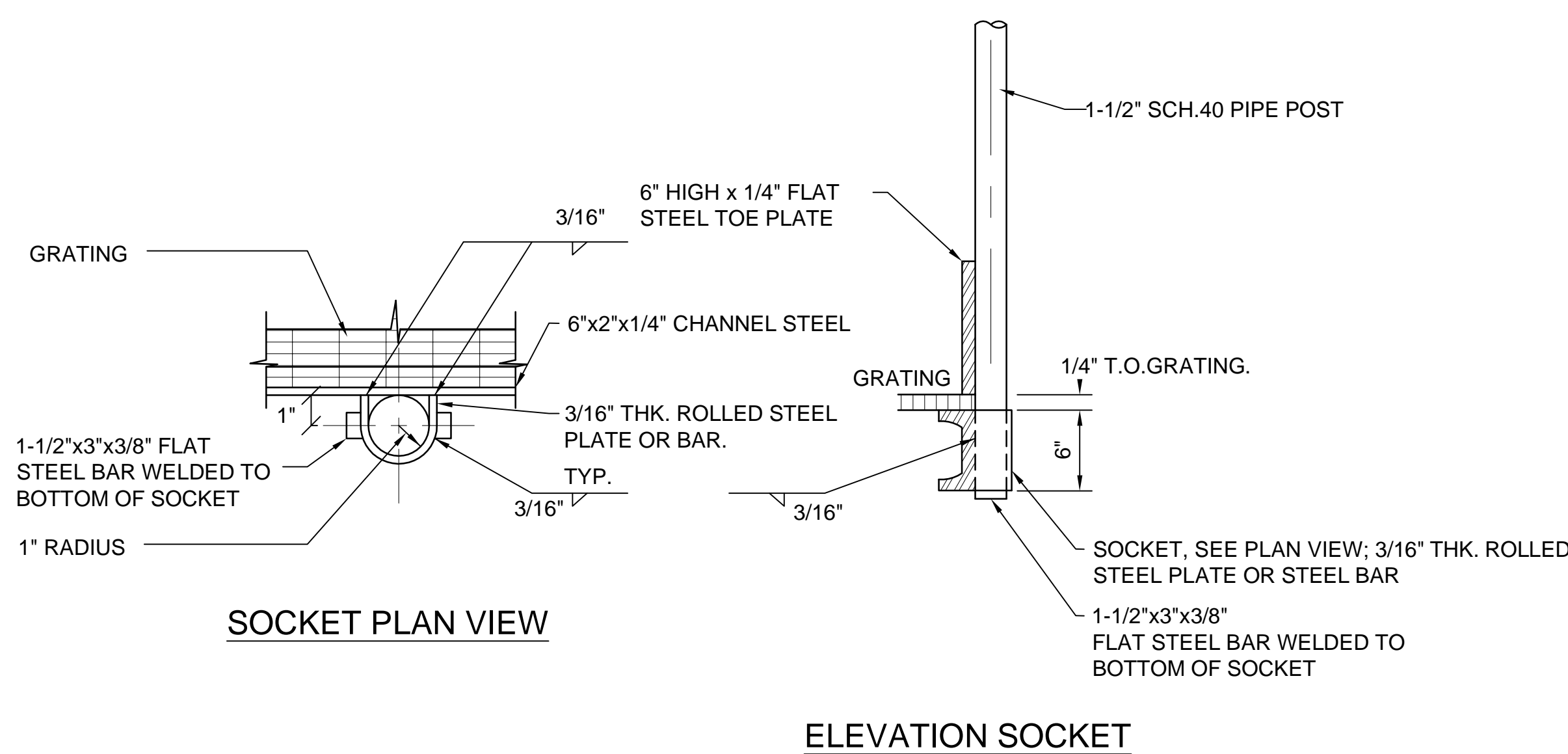
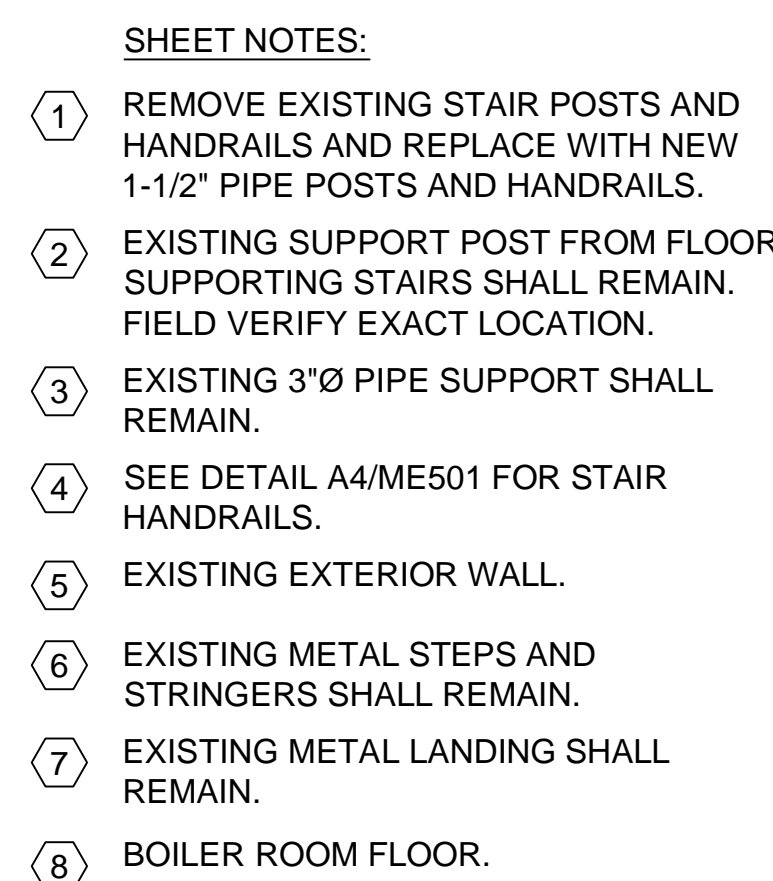
Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER: WP
DRAWN BY: LGD
CHECKED BY: SLW
DATE: 03/25/09
WHW JOB NO.: 08017
SHEET TITLE:

**CATWALK DEMOLITION
PLAN**

SHEET NO. **MD101**



CONSULTANTS



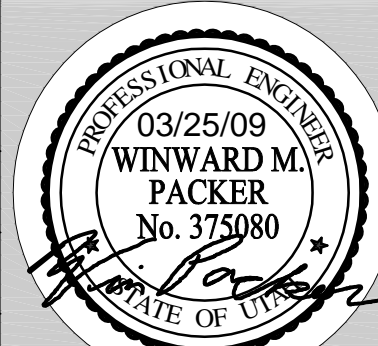
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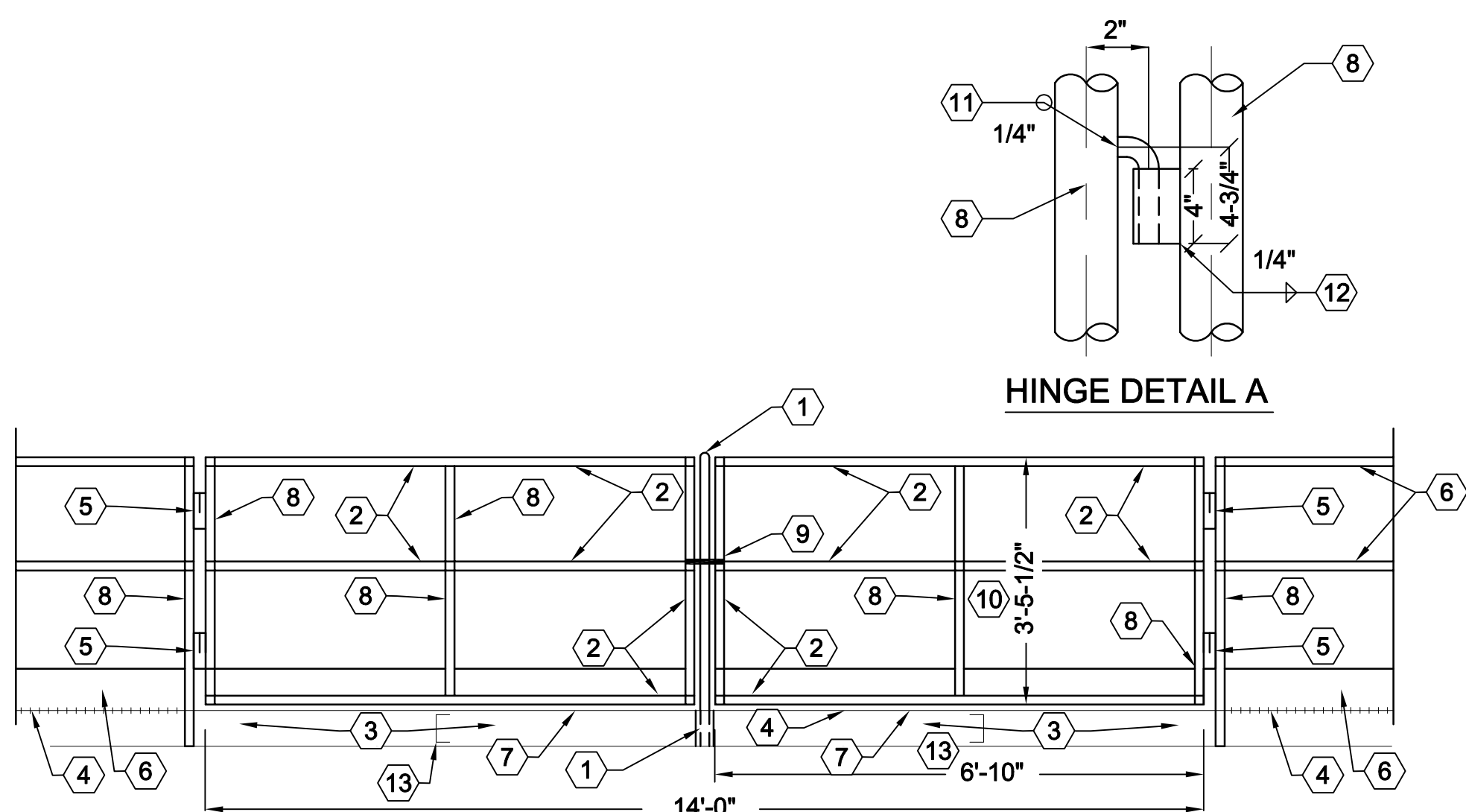
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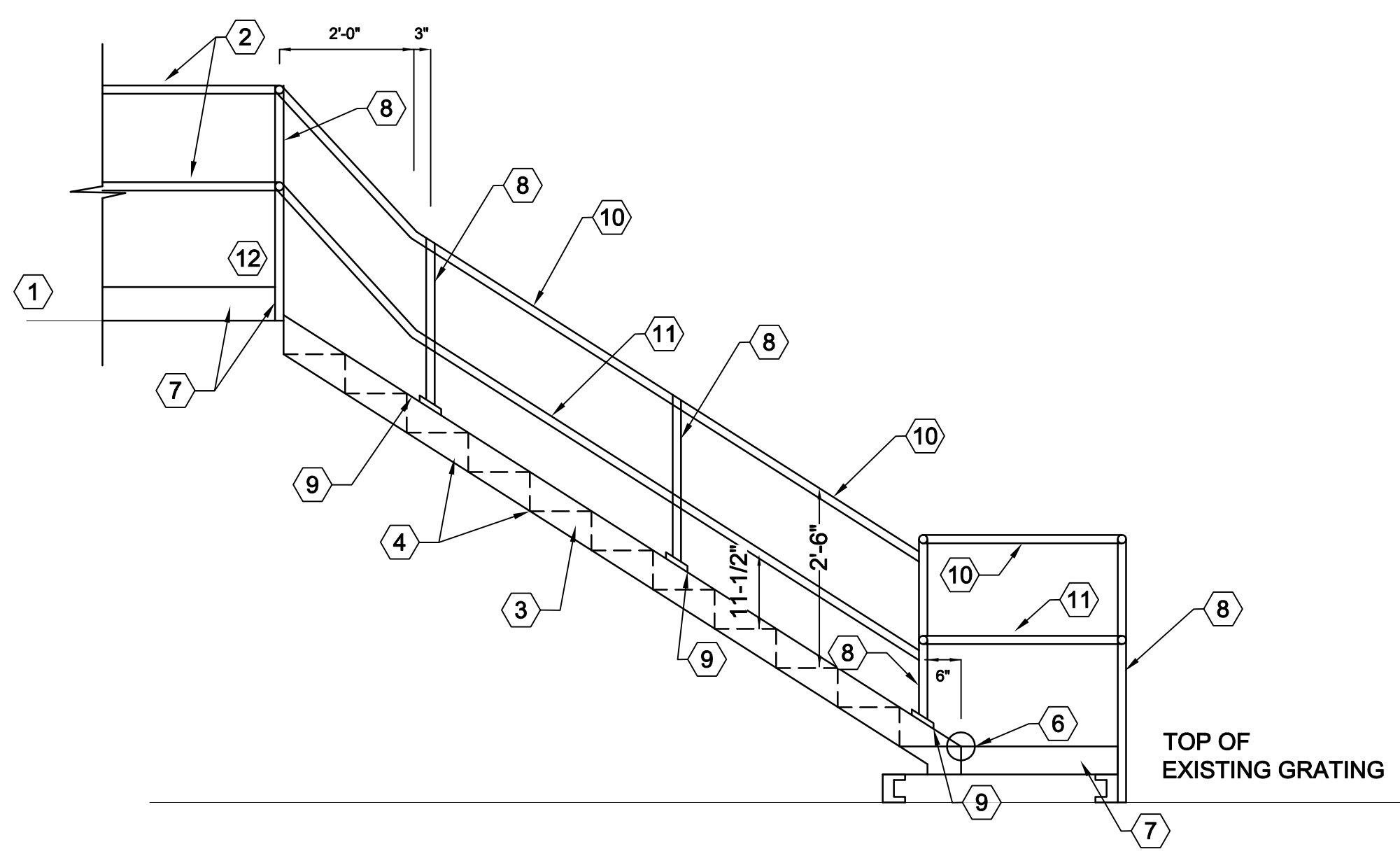
MECHANICAL DETAILS

SHEET NO.

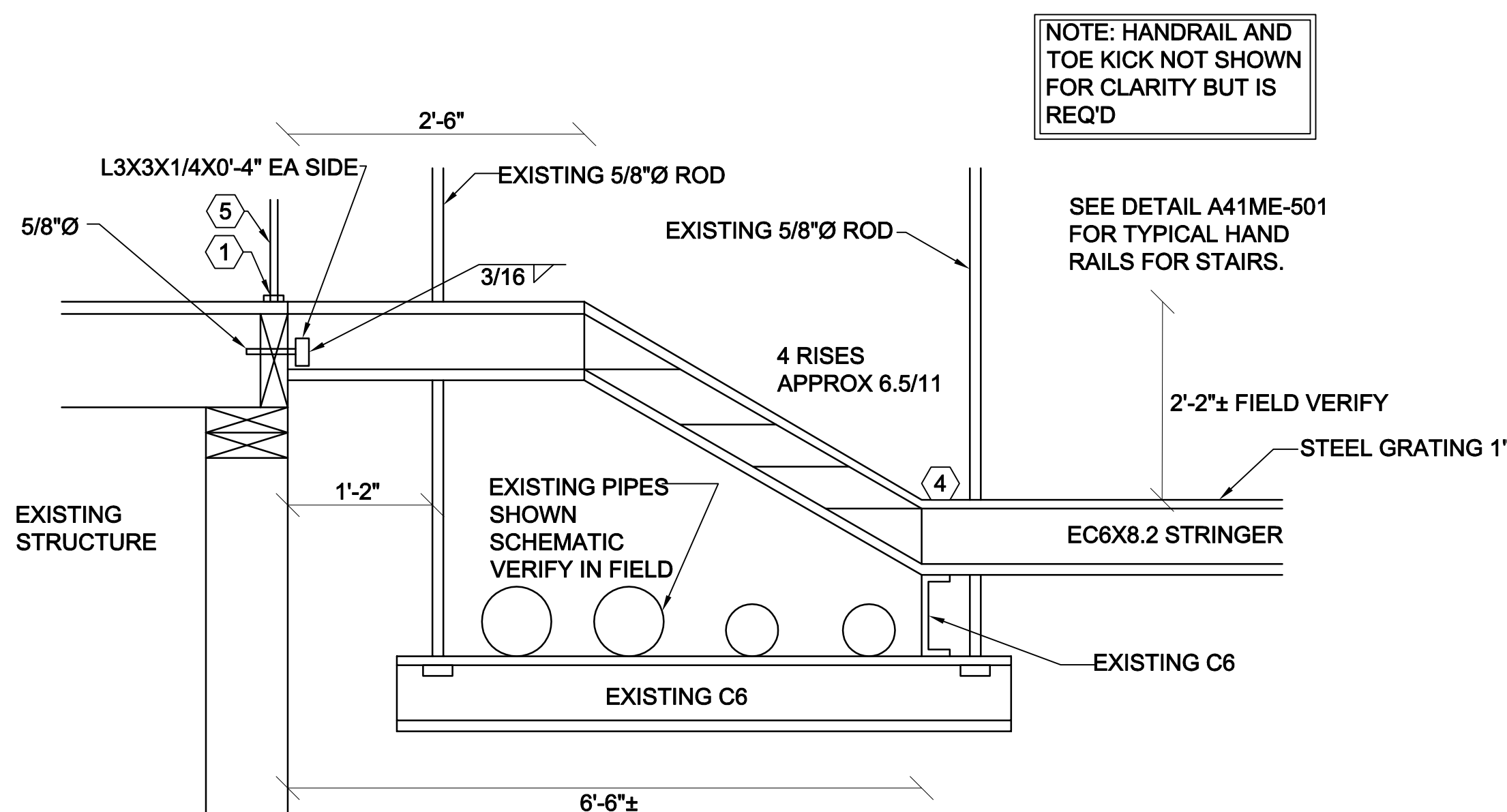
ME502



D1 SECTION NEW SWING GATE
SCALE: 1/2" = 1'-0"



B1 SECTION NEW STAIRWAY A
SCALE: 1/2" = 1'-0"



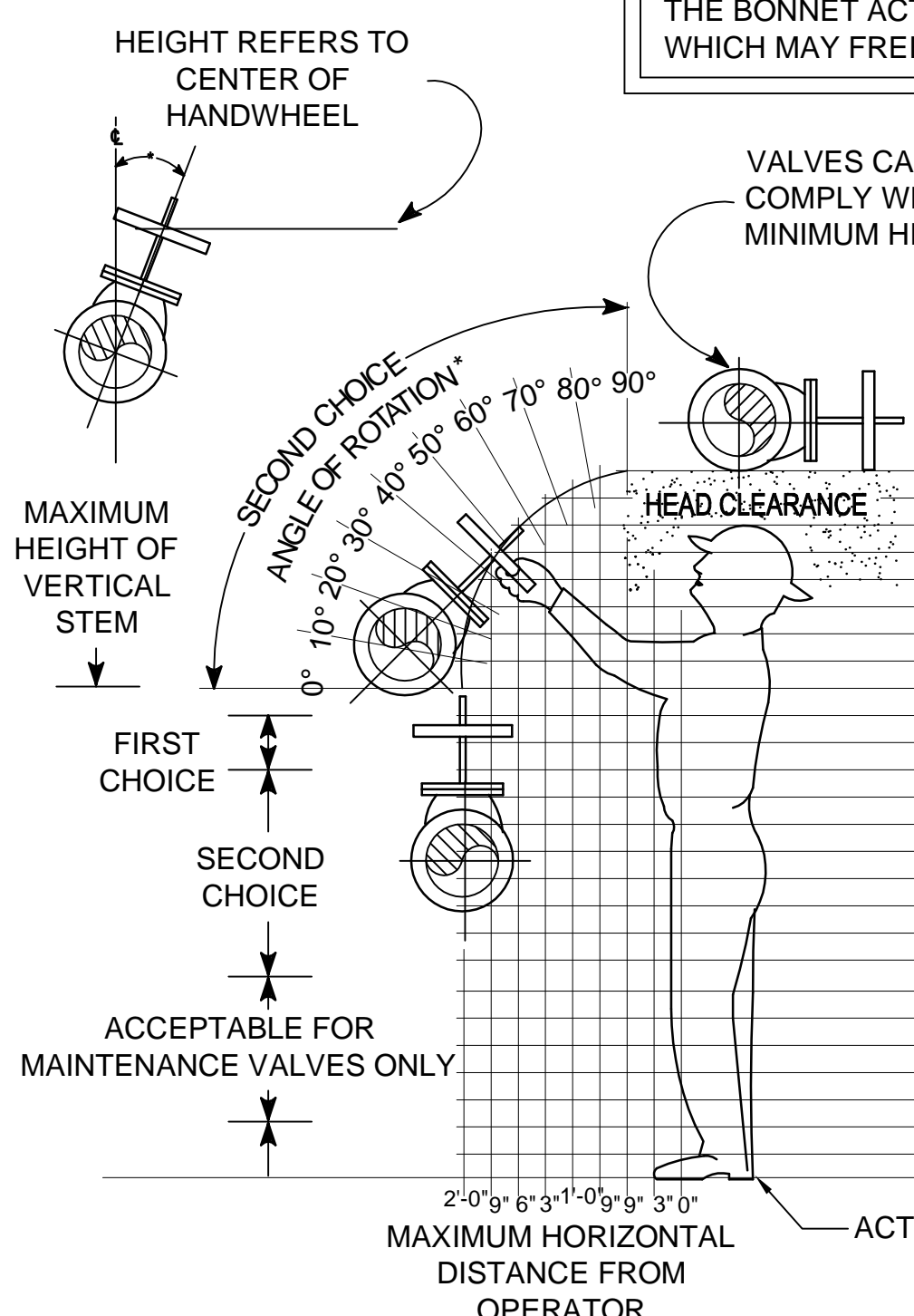
A1 SECTION NEW STAIRWAY B
SCALE: 1/2" = 1'-0"

- SHEET NOTES:**
- 1-1/2"Ø SCHEDULE 40 STEEL REMOVABLE PIPE. SEE DETAIL C3/ME501.
 - STEEL GATE MADE FROM 1-1/2"Ø SCH. 40 STEEL PIPE AND 1-1/4" SCH. 40 STEEL MIDRAIL AND 6"x1/4" STEEL TOE PLATE.
 - EXISTING C8"x2"x1/4" STEEL CHANNEL CATWALK SHALL REMAIN.
 - EXISTING CATWALK GRADING SHALL BE REMOVED AND REPLACED WITH 1" GRATING.
 - HINGE TYPICAL BOTH GATES. SEE DETAIL A.
 - NEW HANDRAILS, MIDRAILS, TOE PLATE ETC. FOR EXISTING CATWALK. SEE SHEET ME101 AND DETAIL D5/ME501.
 - PROVIDE 1/2" CLEARANCE BETWEEN BOTTOM OF GATES AND TOP OF GRATING. GATE ONLY.
 - 1-1/2"Ø SCH. 40 STEEL PIPE POSTS.
 - PROVIDE STEEL LATCHES TO ATTACH, HOLD, AND RELEASE GATES FROM POST.
 - OUTSIDE TO OUTSIDE DIMENSION.
 - WELD 1"Ø STEEL ROD TO GATE POST.
 - WELD 1"x4"AG SCH. 40 PIPE TO HANDRAIL POST. RUN WELD THE FULL 4".
 - PROVIDE C6X8.2 STRINGER MIDWAY BETWEEN GATES.

- SHEET NOTES:**
- TOP OF EXISTING WOOD DECK.
 - NEW STEEL HANDRAIL ON EXISTING WOOD DECK. SEE DETAIL A1/ME502.
 - NEW 8"x2"x1/4" CHANNEL STRINGER.
 - NEW STEEL PLATE STAIRS WELD TO STRINGER. TYPICAL.
 - NEW STEEL PLATFORM AND HANDRAILS. SEE DETAIL D3/ME501. SAME SIZE AS EXISTING.
 - EXTEND TOE PLATE ACROSS FIRST RISER PROVIDING 1/2" TO 1" NOSING.
 - 6"x1/4" TOE PLATE.
 - 1-1/2"Ø SCH. 40 STEEL PIPE POSTS. WELD TO STEEL PLATE.
 - 2x8x1/4" LONG STEEL PLATE ON TOP OF STRINGER. WELD TO STRINGER ALL AROUND.
 - 1-1/2"Ø SCH. 40 STEEL HANDRAIL.
 - 1-1/4"Ø SCH. 40 STEEL MIDRAIL.
 - PROVIDE 4"x4"x1/2" PLATE AT ALL HANDRAIL POSTS. BOLT TO WOOD DECK. WELD 1-1/2" DIAM POST TO BASE PLATE.

- DETAIL NOTES:**
- 4"x4"x1/2" STEEL PLATE BOLTED TO WOOD DECK WITH TWO 5/8"Ø BOLTS WITH NUTS.
 - NEW CATWALK, HANDRAIL, MID-RAIL AND TOE PLATE. SEE DETAIL D3/ME501.
 - NEW STEEL STAIRS WITH FOUR 6.5 RISERS AND 11" STAIR TREADS.
 - EXTEND TOE PLATE FROM CATWALK ACROSS FIRST RISER PROVIDING 1/2" TO 1" NOSING.
 - NEW HANDRAIL, MID-RAIL, AND TOE PLATE FOR WOOD PLATFORM.
 - FIELD VERIFY ELEVATIONS AND ADJUST STAIRS AS NEEDED.

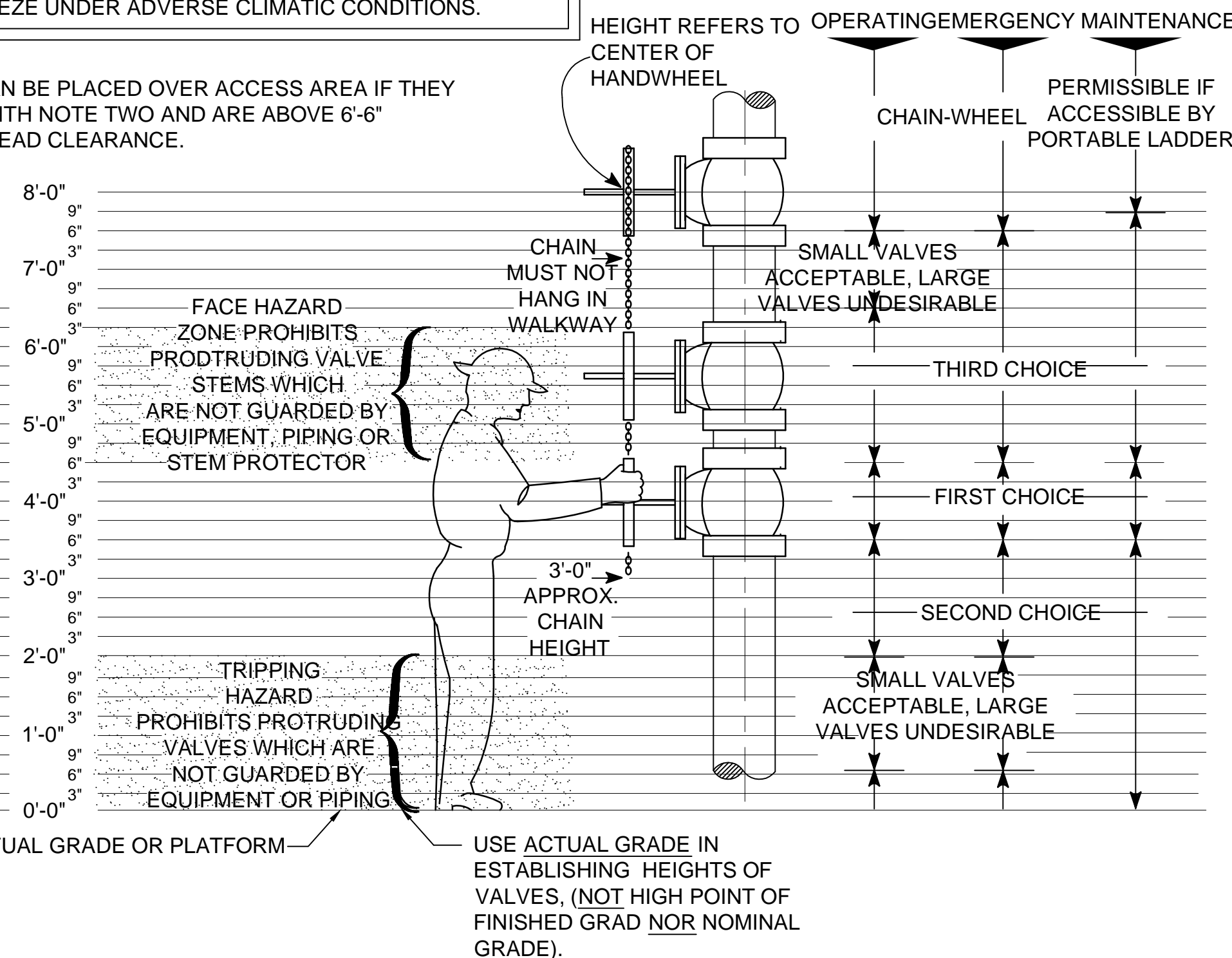
VERTICAL STEM



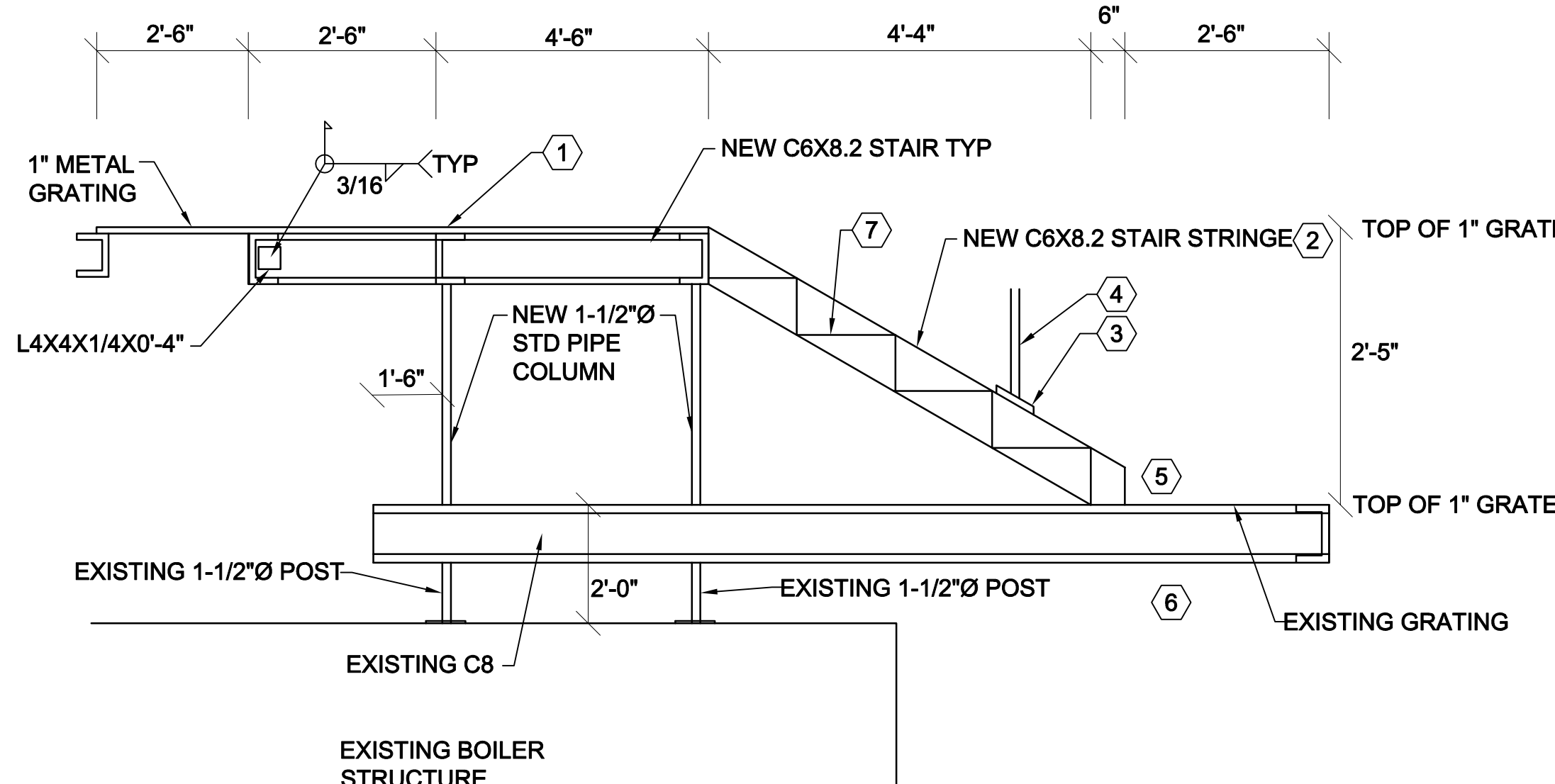
NOTE:
WHENEVER OTHER DESIGN CONSIDERATIONS PERMIT, VALVES ARE BEST INSTALLED WITH THE STEM POINTING STRAIGHT UP (VERTICAL STEM). SINCE THIS POSITION GREATLY FACILITATES IN-PLACE MAINTENANCE (LUBRICATION OF SCREW, INSPECTION, REPACKING).

VALVES MAY BE ROTATED AS FAR AS THE HORIZONTAL POSITION WITH NO GREAT DECREASE IN MAINTENANCE CONVENIENCE, BUT SHOULD NOT BE INSTALLED WITH THE STEM DOWNWARD SINCE THE BONNET ACTS AS A TRAP FOR ABRASIVE SEDIMENT AND WATER WHICH MAY FREEZE UNDER ADVERSE CLIMATIC CONDITIONS.

HORIZONTAL STEM

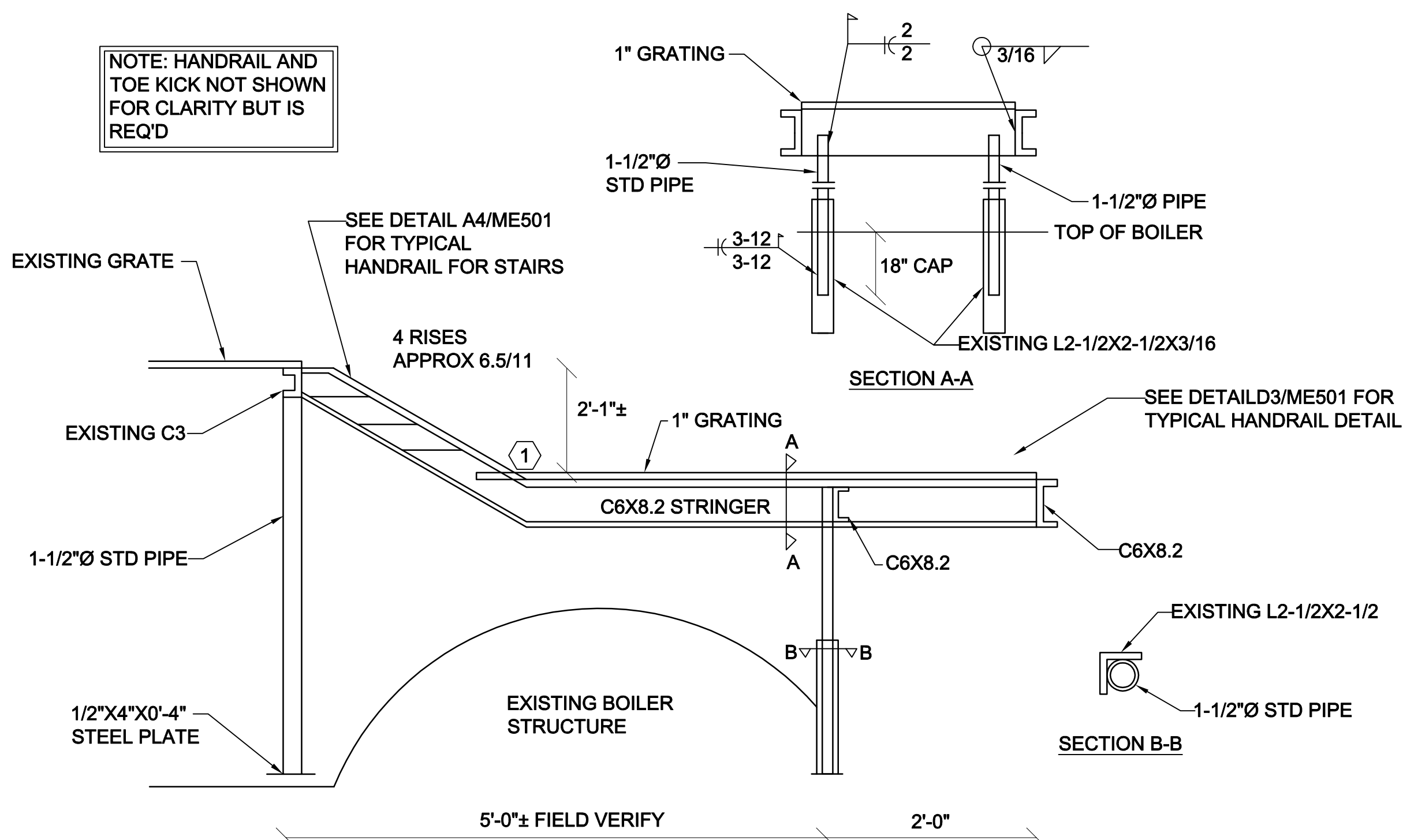


C5 VALVE ACCESS DETAIL
SCALE: NONE



- SHEET NOTES:**
- NEW CATWALK, HANDRAILS, MIDRAILS, AND TOE PLATE. SEE DETAIL D3/ME501.
 - NEW C6X8.2 STEEL CHANNEL STRINGERS.
 - 2"x8"x1/4" STEEL PLATE WELD ALL AROUND TO NEW POSTS. WELD STEEL POSTS TO PLATE. SEE DETAIL A4/ME502.
 - 1-1/2"Ø SCH. 40 STEEL POST
 - NEW HANDRAIL, MIDRAIL AND TOE PLATE ATTACHED TO EXISTING PLATFORM. SEE DETAIL D5/ME501.
 - EXTEND TOE PLATE ACROSS FIRST RISER, PROVIDING 1/2" TO 1" NOSING.
 - 11" LONG STEEL STAIR TREADS - WELD TO 8"x2" CHANNEL.

B4 SECTION NEW STAIRWAY C
SCALE: 3/4" = 1'-0"



- DETAIL NOTES:**
- EXTEND TOE PLATE FROM CATWALK ACROSS FIRST RISER PROVIDING 1/2" TO 1" NOSING.
 - 6-3/4" RISER AND 11" TREAD TYPICAL. FIELD VERIFY.

A4 SECTION NEW STAIRWAY D
SCALE: 1/2" = 1'-0"

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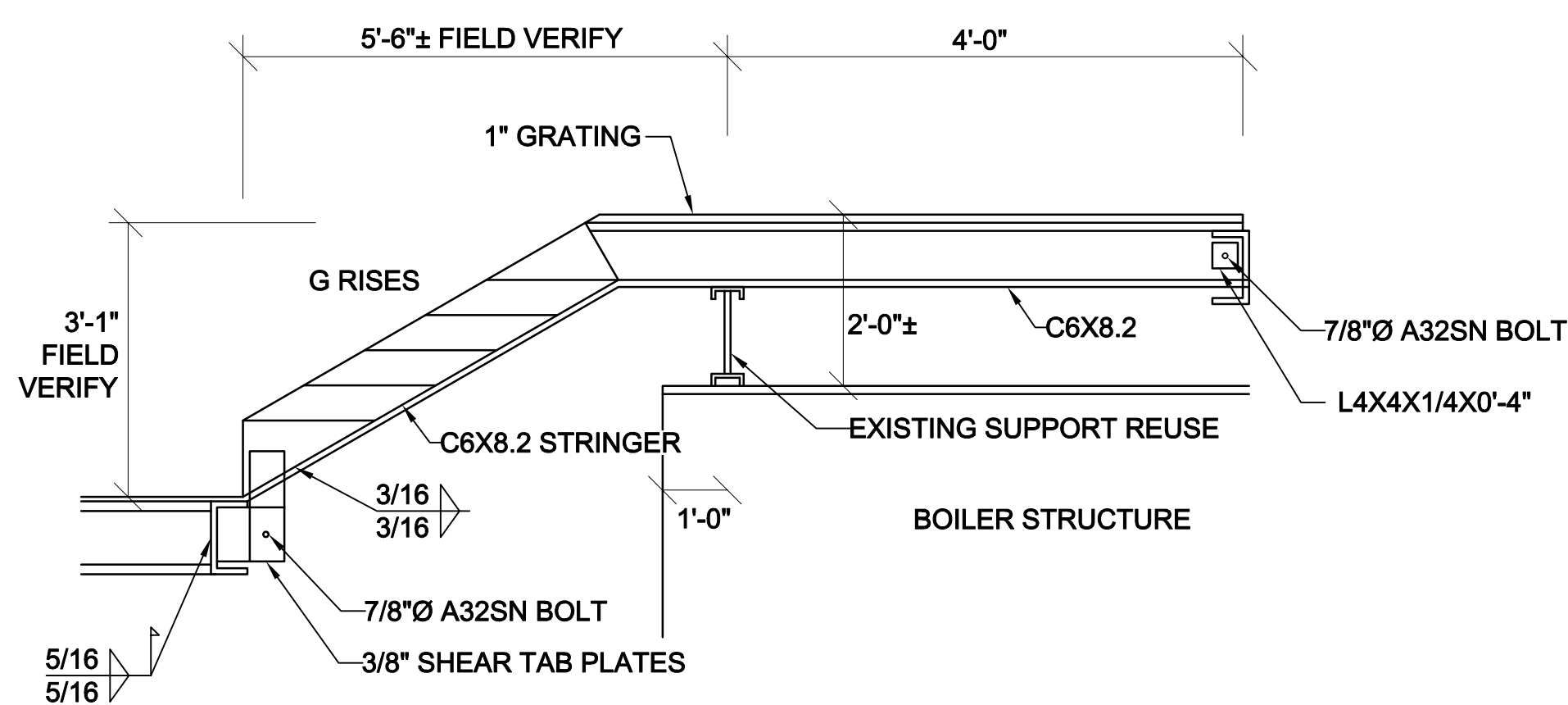
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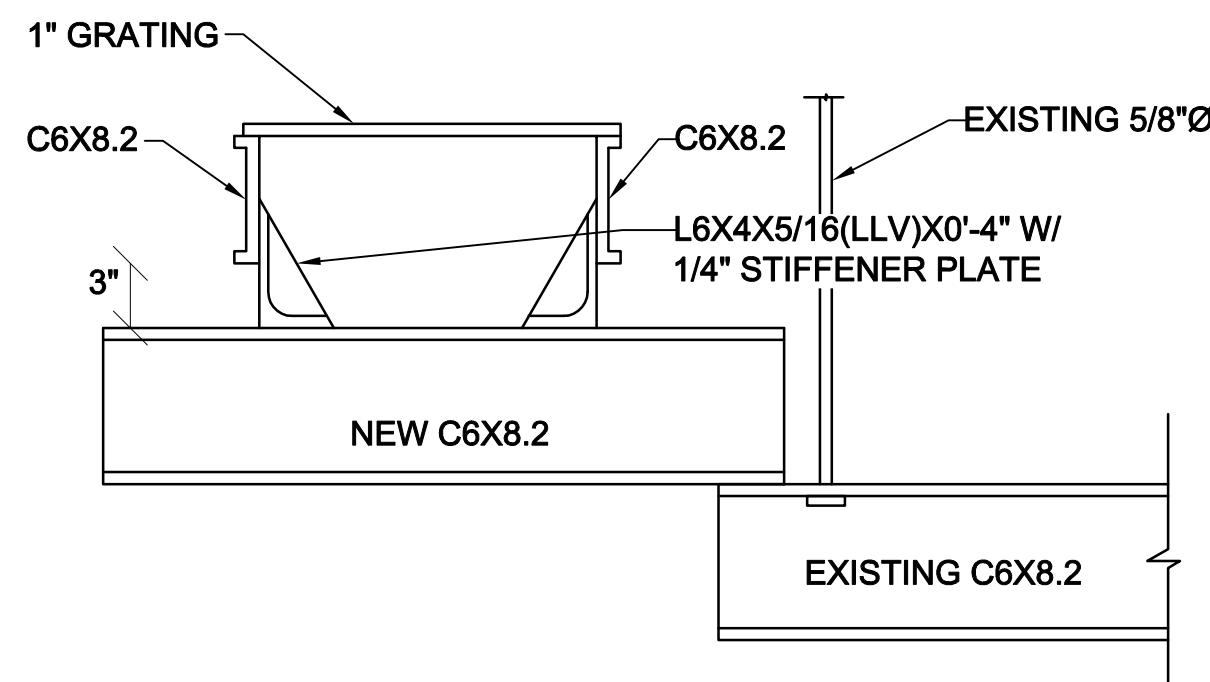
MECHANICAL DETAILS

SHEET NO.

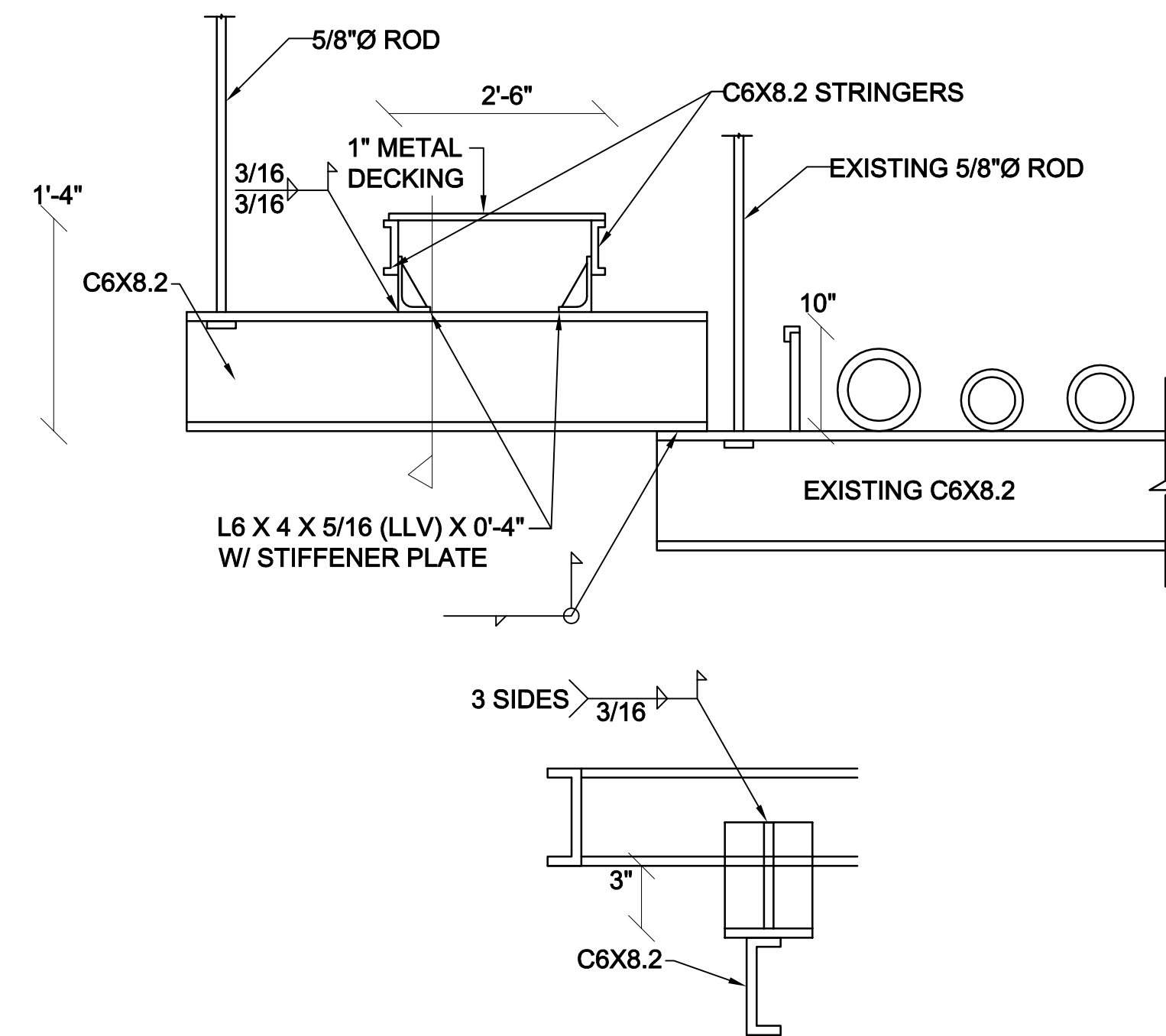
ME503



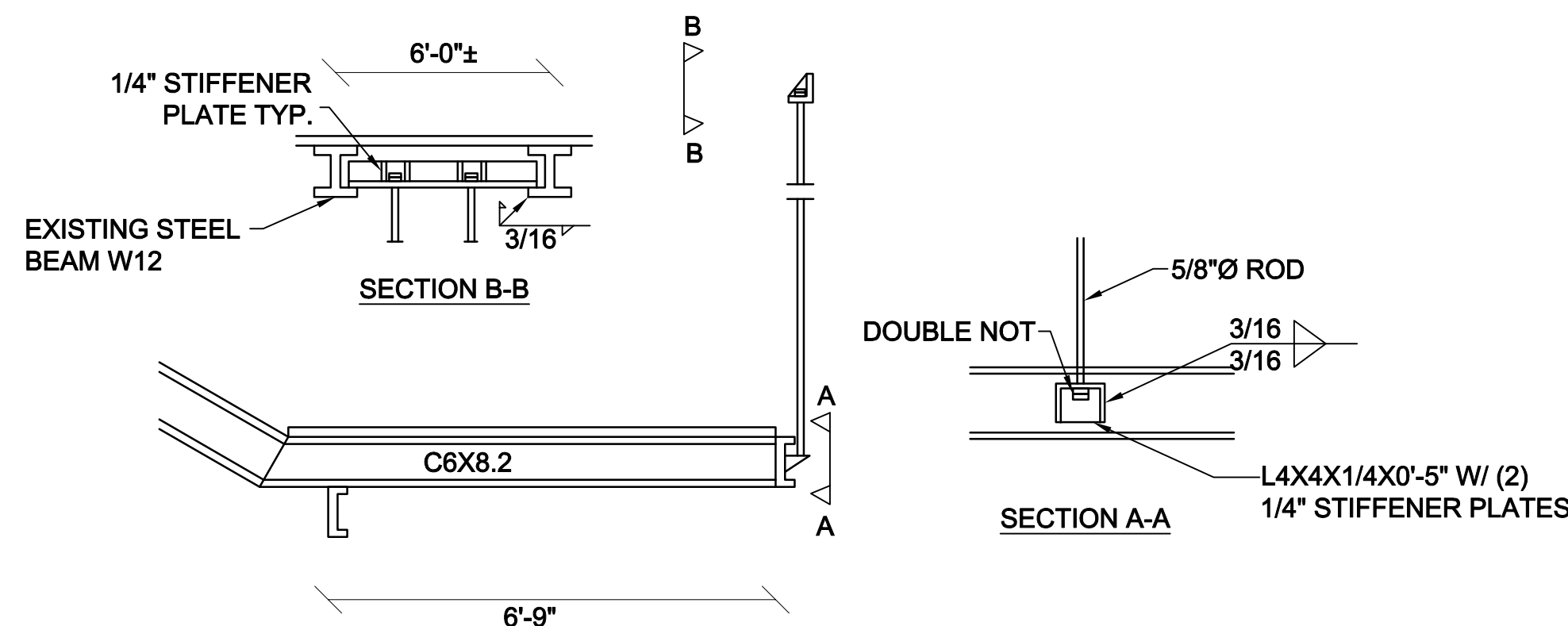
D1 STRUCTURAL DETAIL
SCALE: NONE



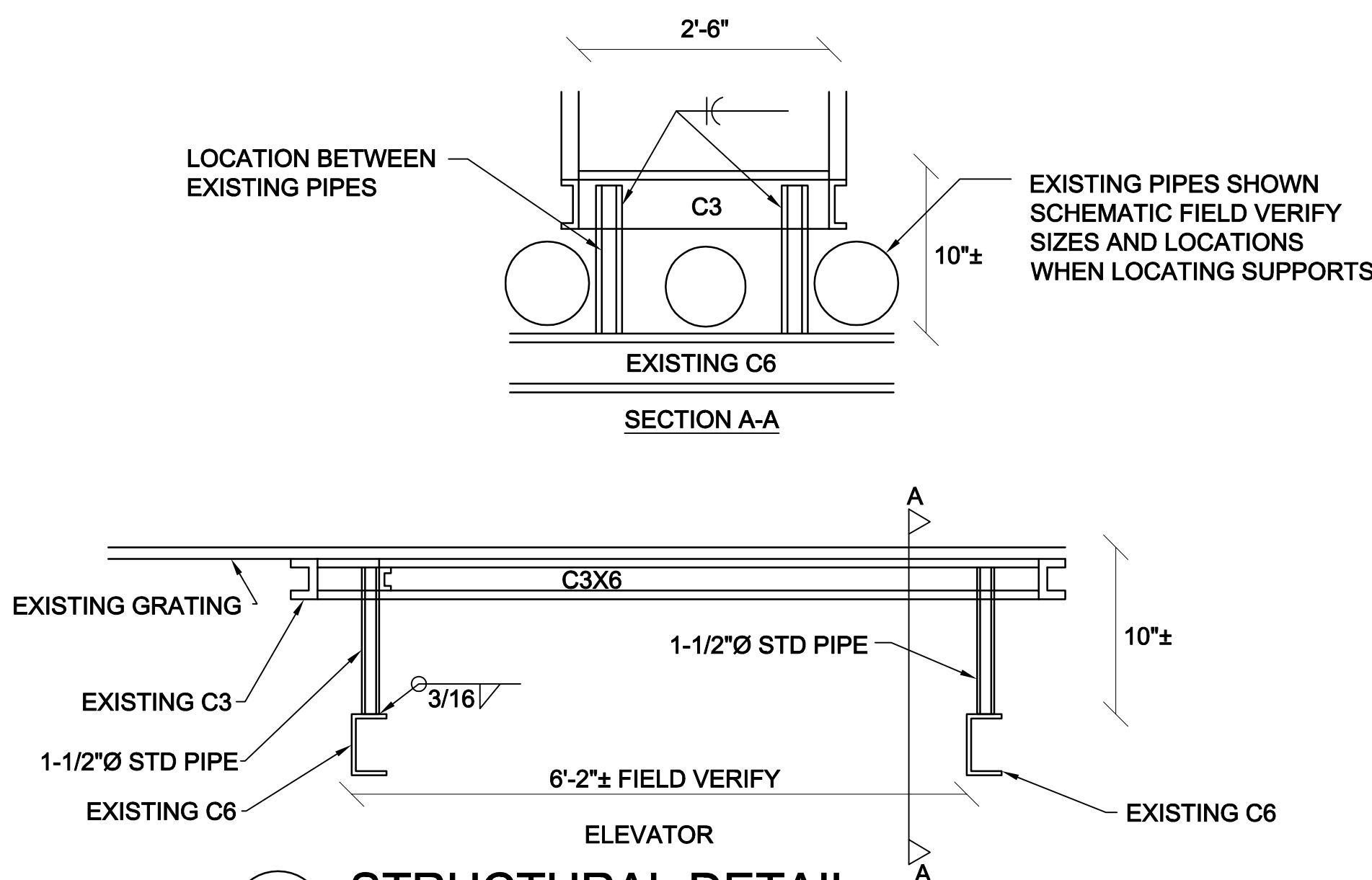
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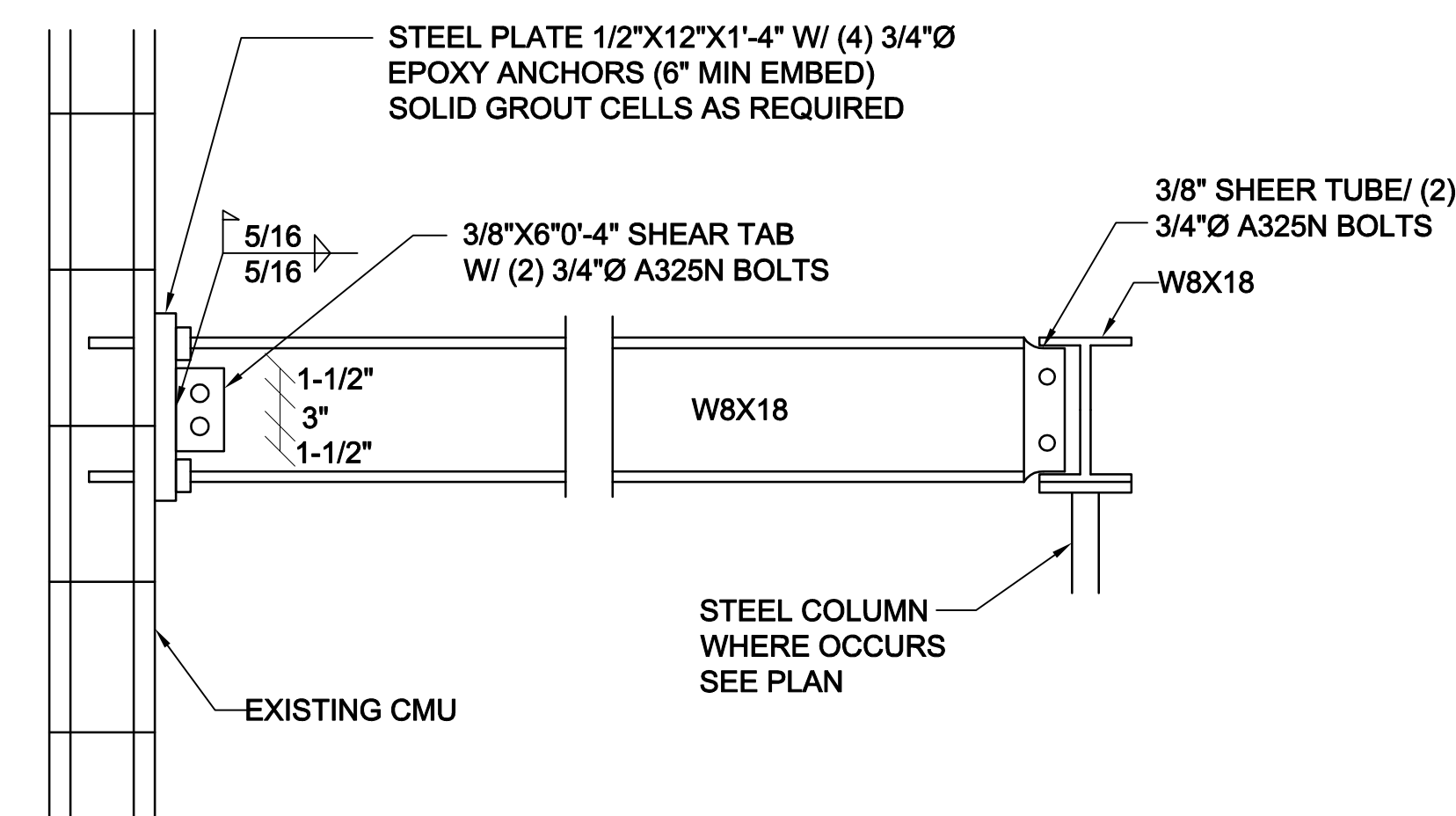
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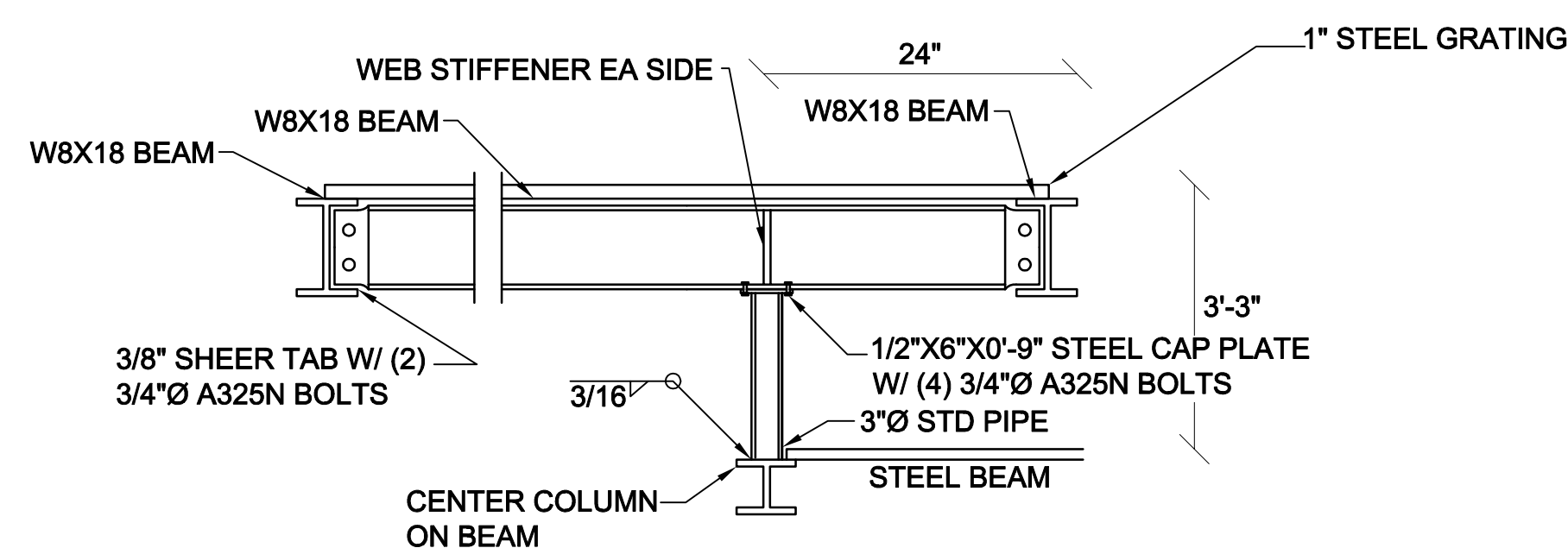
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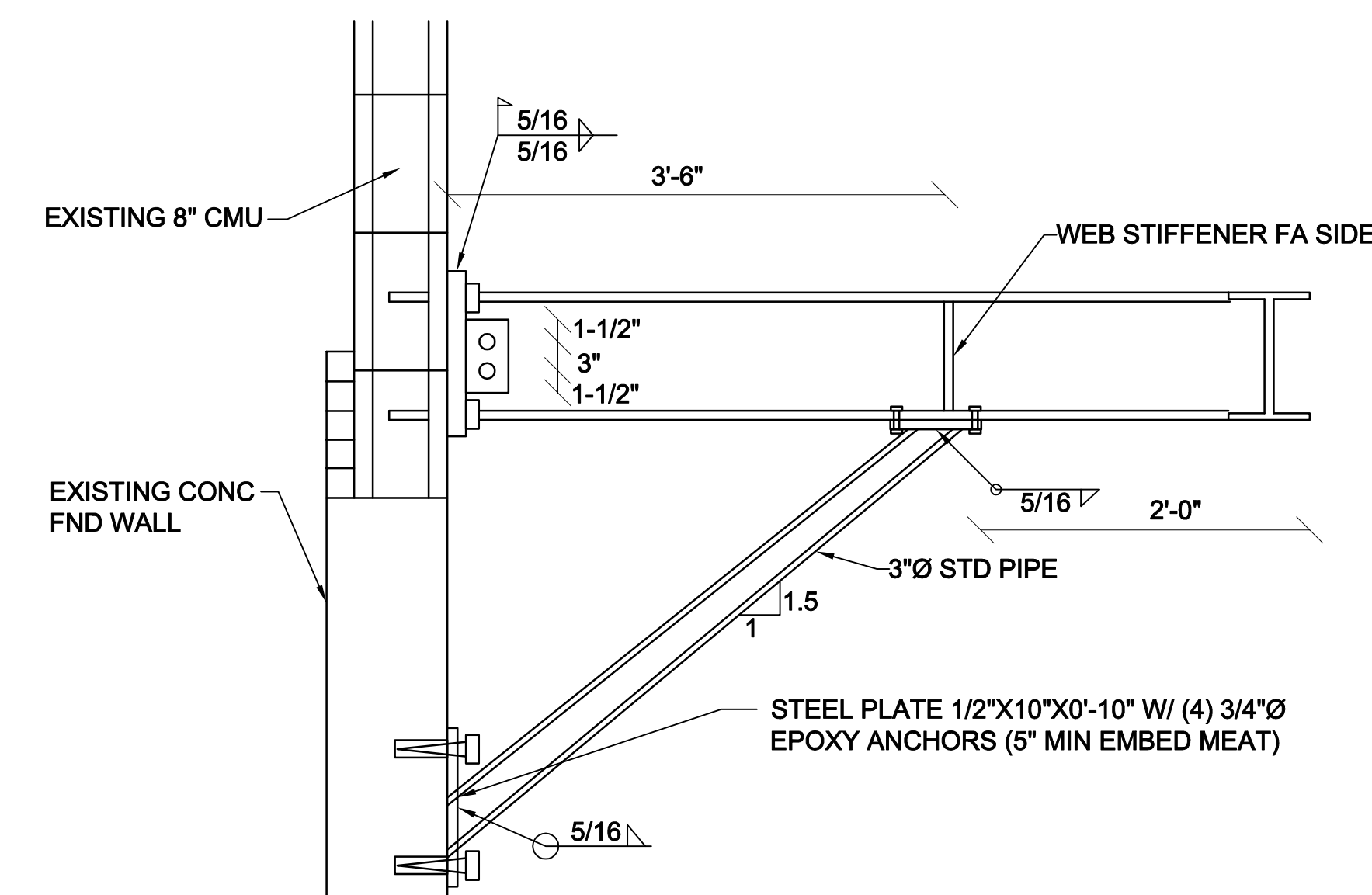
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SCALE: NONE



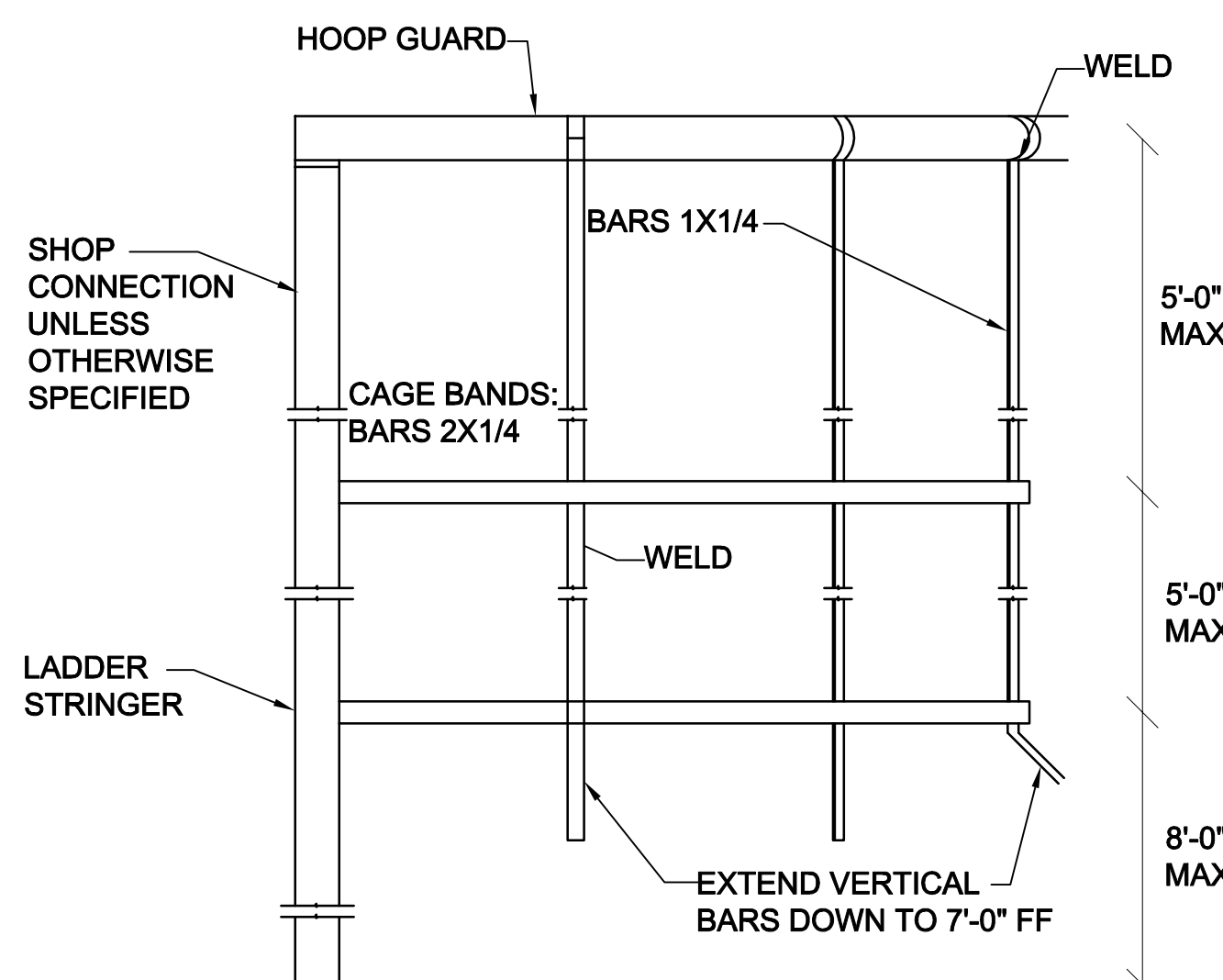
C5 STRUCTURAL DETAIL
SCALE: NONE



A1 STRUCTURAL DETAIL
SCALE: NONE

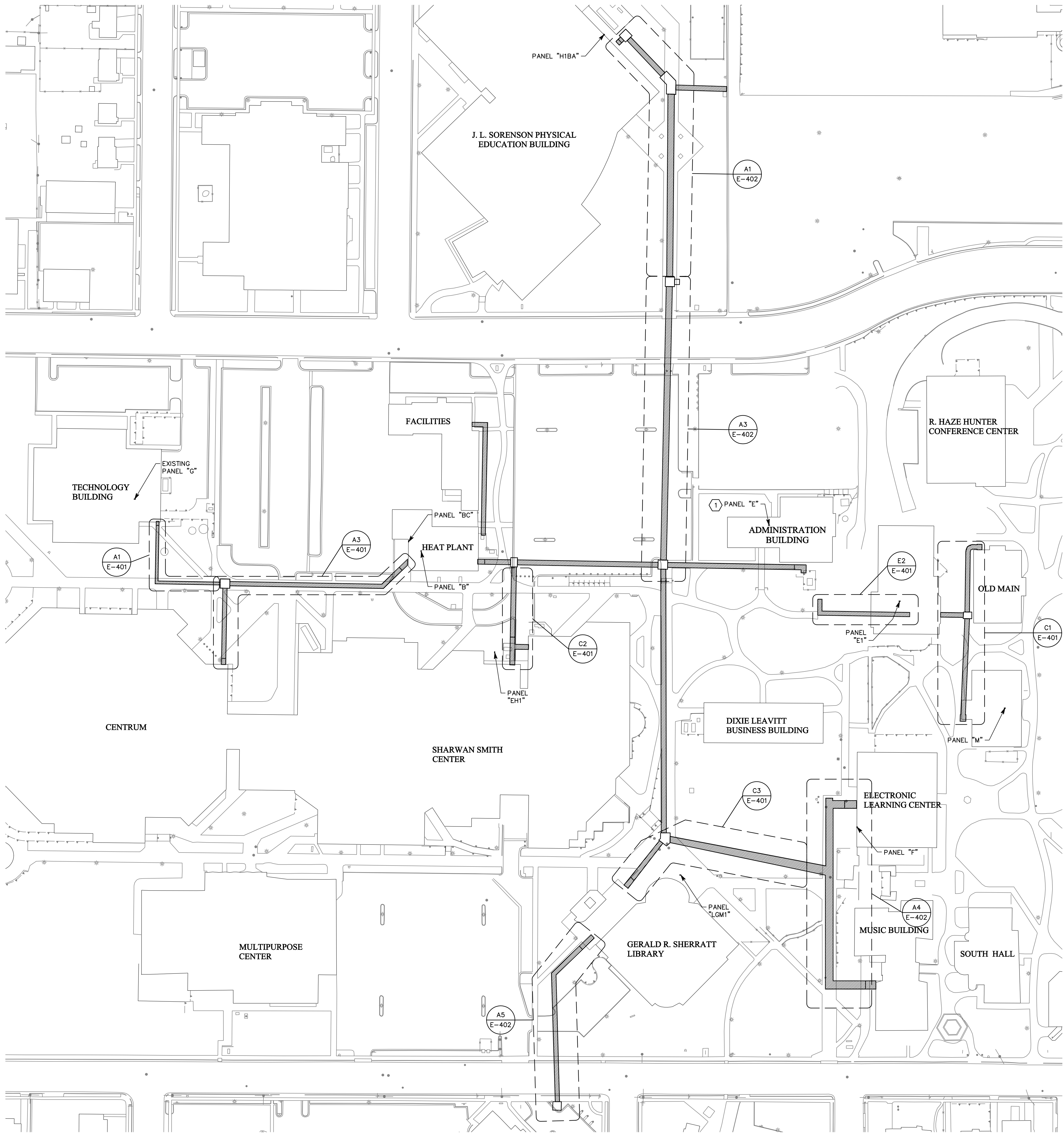


A3 STRUCTURAL DETAIL
SCALE: NONE



A5 STRUCTURAL DETAIL
SCALE: NONE

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SHEET KEYNOTES


1. EXTEND EXISTING 1.5" CND FROM EDGE OF TEACHER'S EDUCATION BUILDING TO PANEL "E". DISCONNECT EXISTING FEEDER TO PANEL "E" (DISTRIBUTION PANEL FEEDING PANEL "E" IS APPROXIMATELY 10' AWAY). IN TEACHER'S EDUCATION BUILDING, EXTEND EXISTING SPARE 1.5" CND FROM PANEL "Q1" TO PANEL "E1" LOCATED IN SAME ELECTRICAL ROOM, APPROXIMATELY 10' AWAY. PROVIDE NEW 100/3 DISCONNECT WITH 70A FUSES IN TEACHER'S EDUCATION BUILDING PANEL "E1" AND FEED PANEL "E" IN ADMINISTRATION FROM THIS FUSED DISCONNECT WITH 4 #2, #6 G, 1.5" CND.

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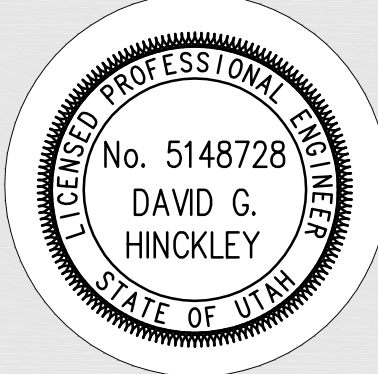
PROJECT NAME & ADDRESS

**SUU HEAT PLANT
CATWALK SYSTEM
AND STEAM TUNNEL
EMERGENCY
LIGHTING**
DFCM #08110730

Cedar City, Utah

MARK	DATE	REVISION

PROJECT MANAGER:
DGH
DRAWN BY:
RRP/DGH
CHECKED BY:
DGH
DATE:
01/26/09
WHW JOB NO.:
08017
SHEET TITLE

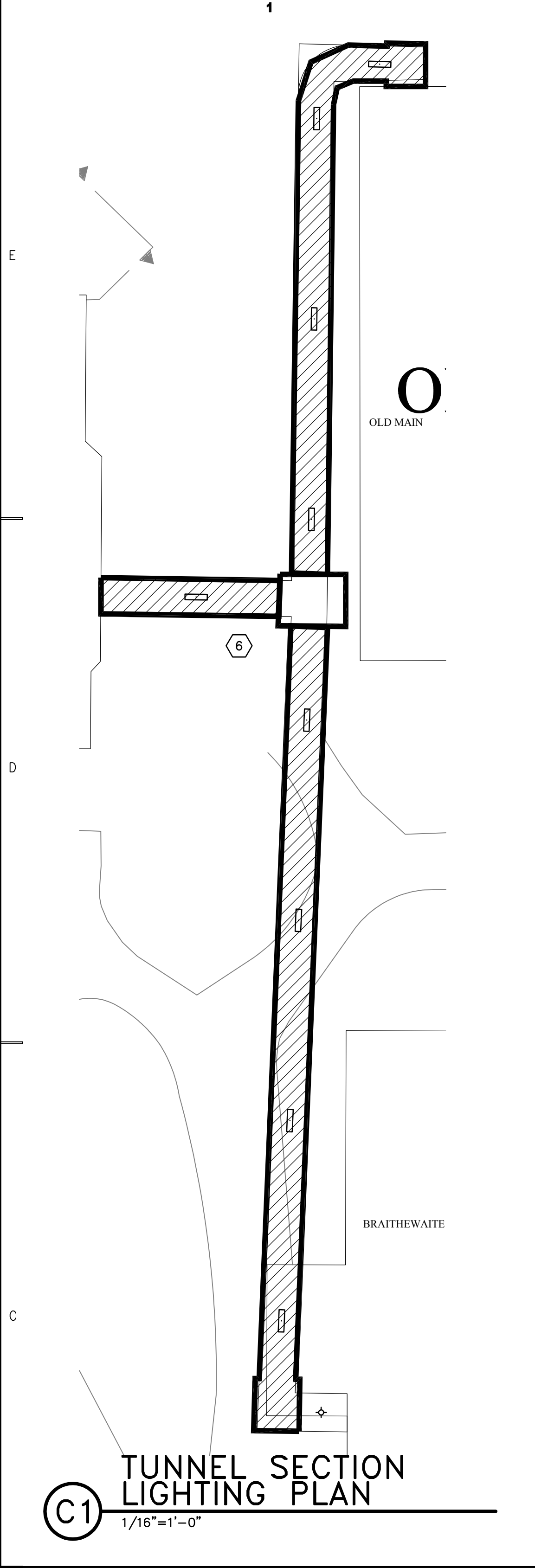


**STEAM TUNNEL
ELECTRICAL SITE PLAN**

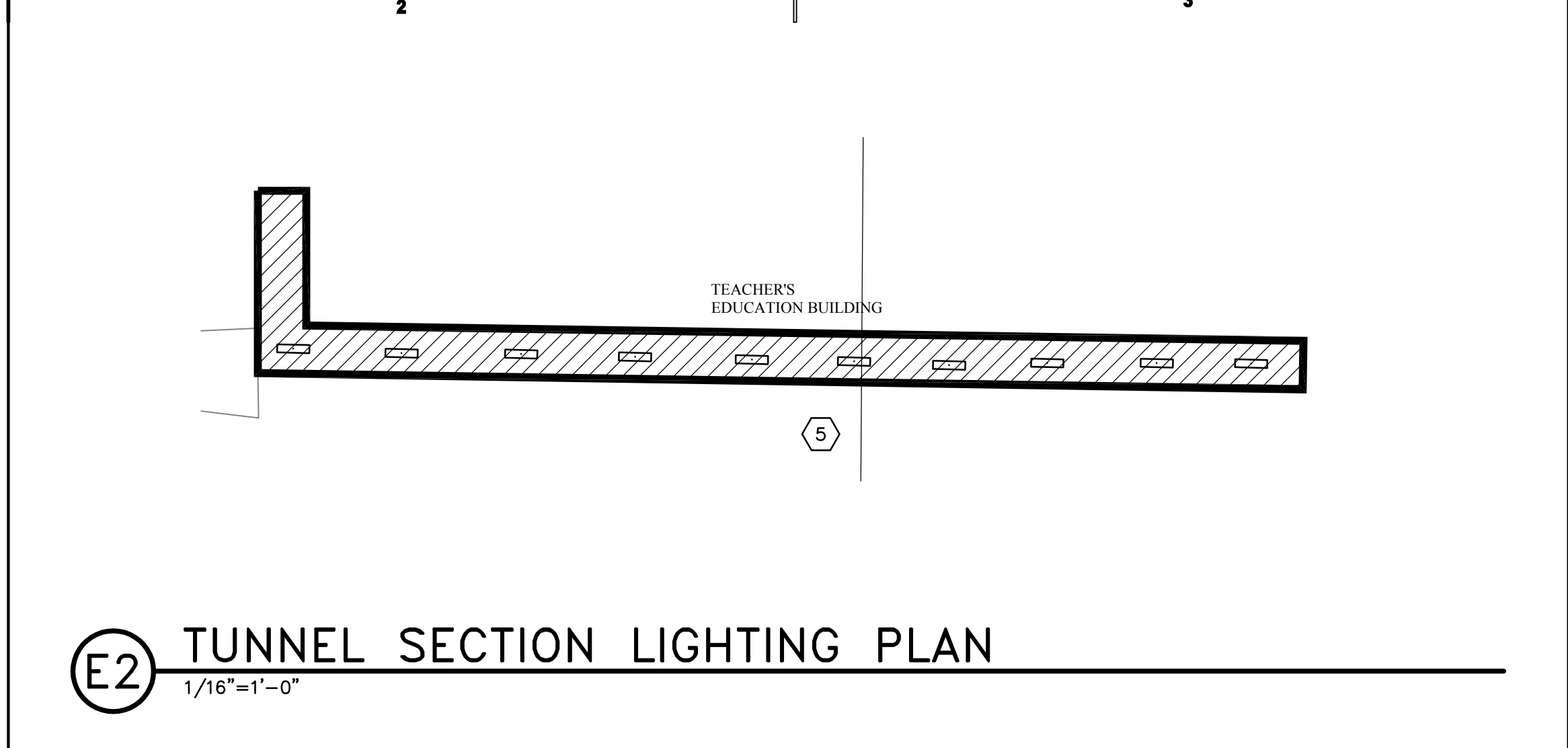
SHEET NO.
E-101

A1 STEAM TUNNEL ELECTRICAL SITE PLAN
SCALE: 1/64"=1'-0"

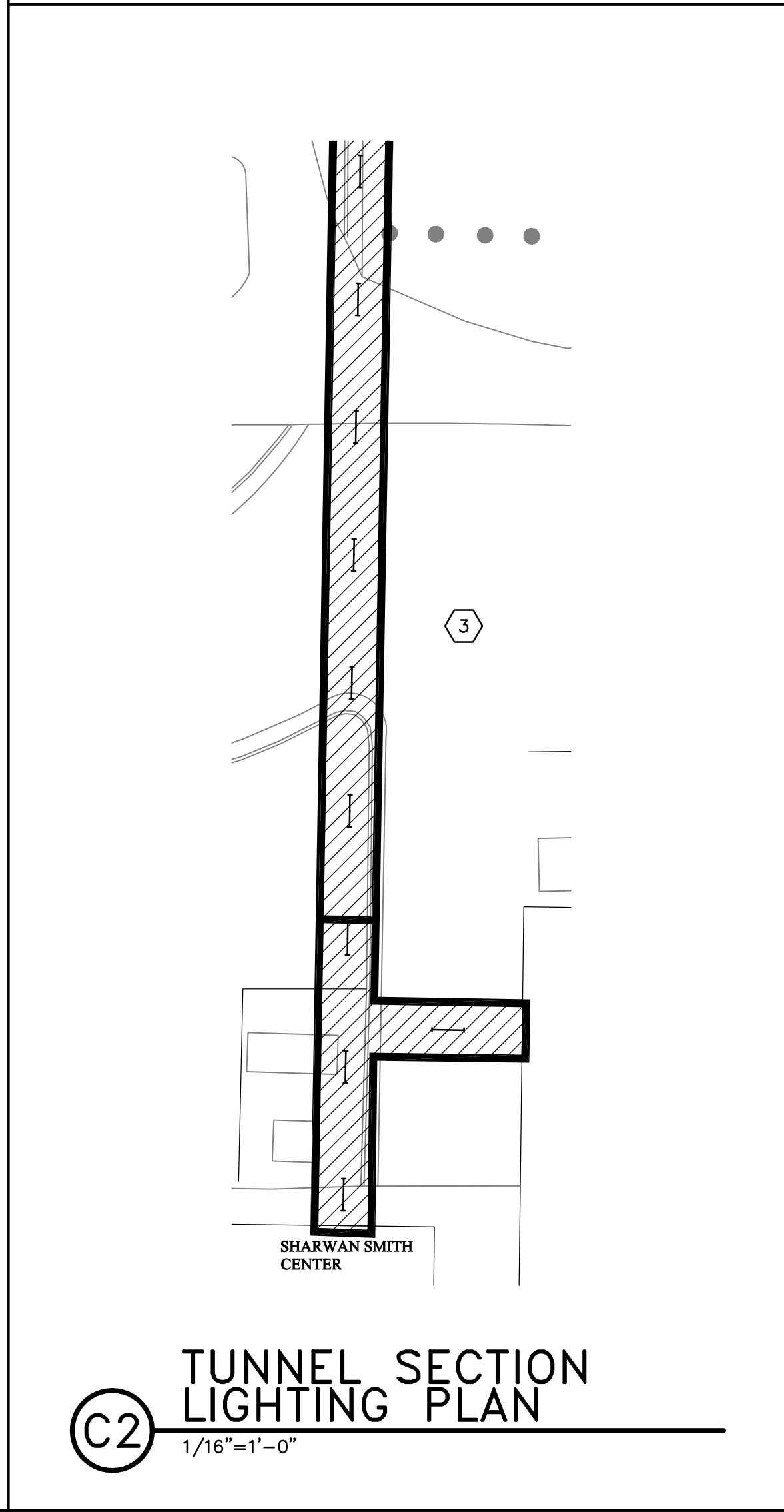
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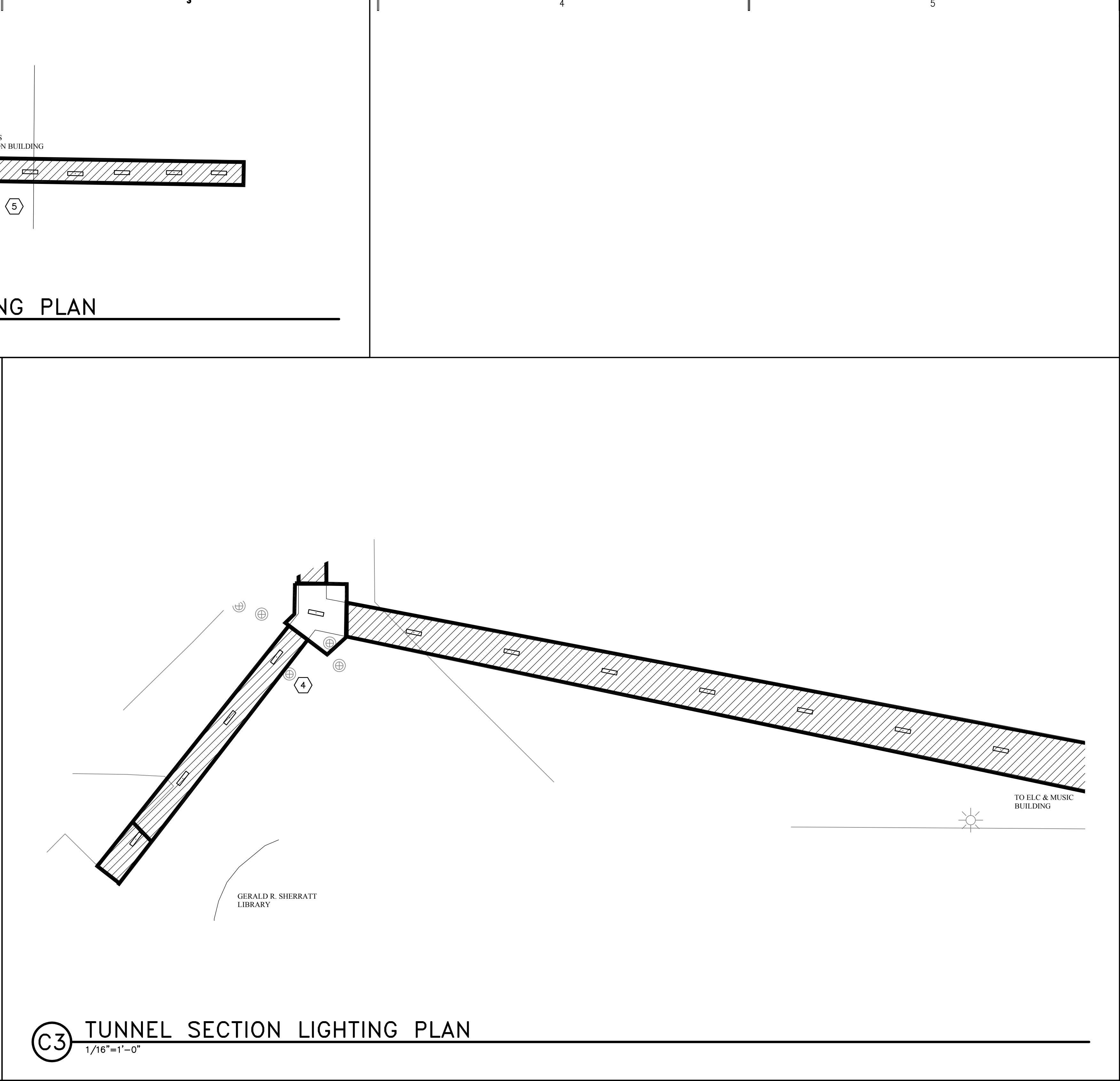
C1 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



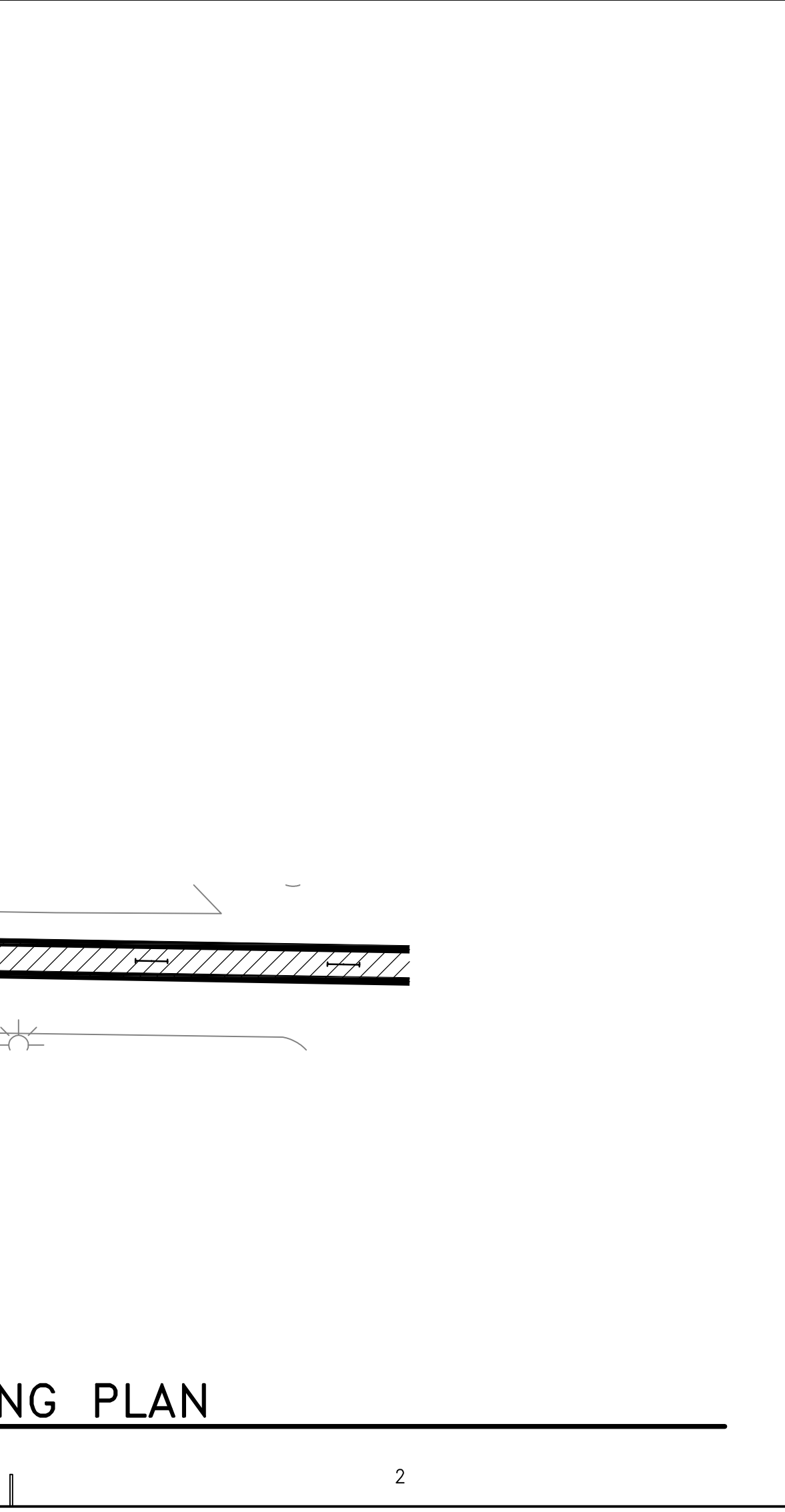
E2 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



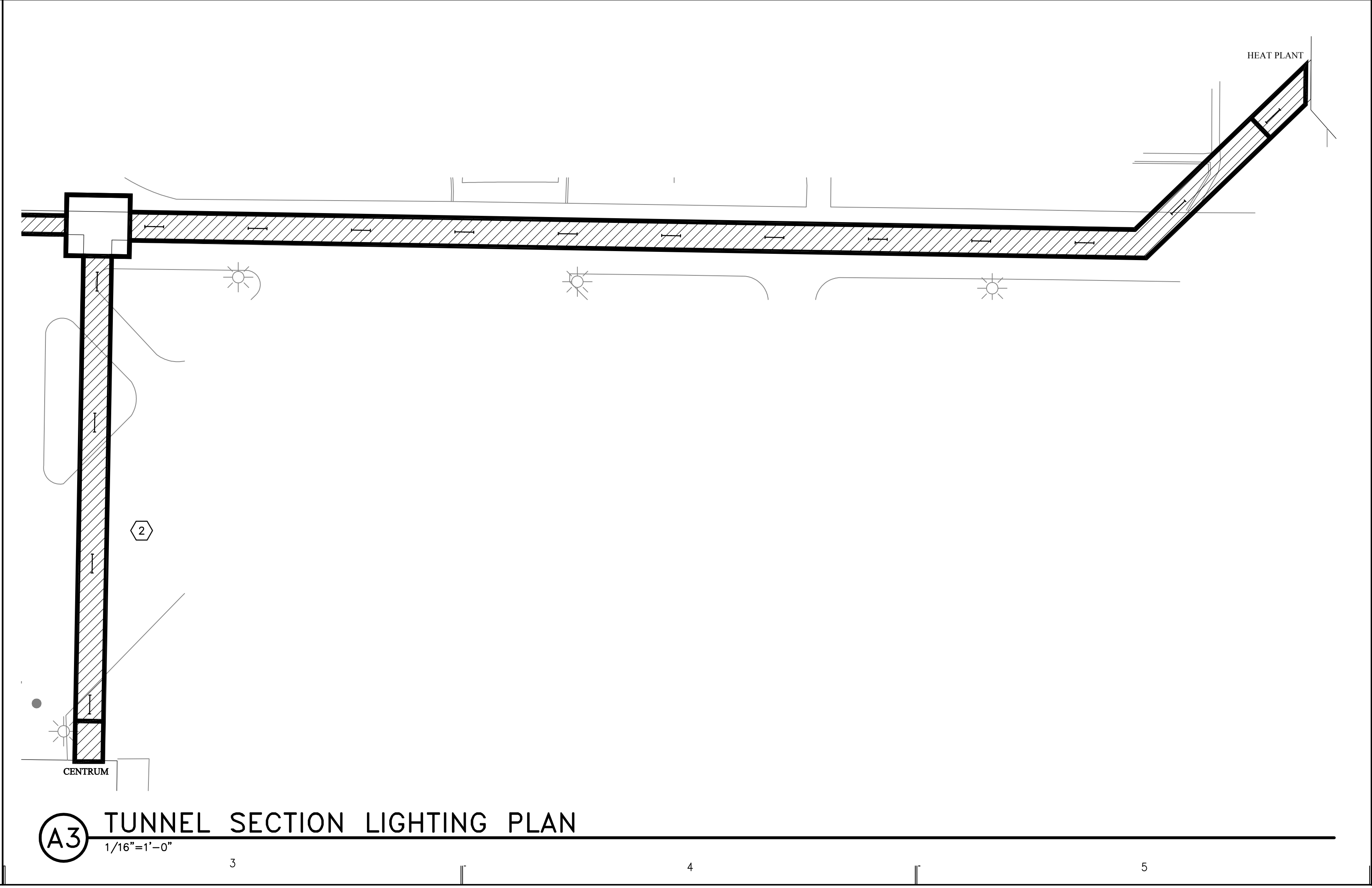
C2 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



C3 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



A1 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



A3 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"

SHEET KEYNOTES

- (8) 1-LAMP T12 STRIP LIGHTS CIRCUITED TO G-23 LOCATED IN TECHNOLOGY BUILDING. MOVE CIRCUIT HOMERUN TO PANEL "B" CIRCUIT 30. EXTEND CONDUIT AND WIRING AS REQUIRED. ALL ADDITIONAL WIRING SHALL BE #10 AWG.
- (16) 1-LAMP T12 STRIP LIGHTS CIRCUITED TO BC-12 LOCATED IN HEAT PLANT. MOVE CIRCUIT HOMERUN TO PANEL "B" CIRCUIT 30. PANEL "B" LOCATED IN HEAT PLANT. EXTEND CONDUIT AND WIRING AS REQUIRED. ALL ADDITIONAL WIRING SHALL BE #10 AWG.
- (10) 2-LAMP T8 STRIP LIGHTS CIRCUITED TO EH1-20 LOCATED NORTH OF THE SHARWAN SMITH CENTER. REPLACE EXISTING 277V BALLASTS WITH DUAL-VOLTAGE 120/277V, ELECTRONIC BALLASTS WITH <10 THD. MOVE CIRCUIT HOMERUN TO PANEL "EPP" (LOCATED IN SAME ELECTRICAL ROOM, 5' FROM EH1) CIRCUIT 16. EXTEND CONDUIT AND WIRING AS REQUIRED.
- (12) 2-LAMP T8 LENSED LIGHT FIXTURES CIRCUITED TO LGM1-22 LOCATED NORTH OF GERALD R. SHERRATT LIBRARY. MOVE CIRCUIT TO NEW 20/1 BREAKER IN NEW PANEL "E1B". EXTEND CONDUIT AND WIRING AS REQUIRED. ALL NEW WIRING SHALL BE #10 AWG. NEW CIRCUIT WILL HAVE (19) 2-LAMP T8 FIXTURES (12 FROM THIS SECTION OF TUNNEL AND 7 FROM NEARBY SECTION OF TUNNEL).
- (10) 2-LAMP T8 LENSED LIGHT FIXTURES CIRCUITED TO E1-23 IN TEACHER'S EDUCATION BUILDING.
- (9) 2-LAMP T8 LENSED LIGHT FIXTURES PLUS (1) 60W INCANDESCENT LIGHT FIXTURE CIRCUITED TO M-25 LOCATED IN BRAITHWAITE BUILDING. MOVE CIRCUIT M-25 TO CIRCUIT E1-23 LOCATED IN TEACHER'S EDUCATION BUILDING. EXTEND CONDUIT AND WIRING AS REQUIRED. ALL NEW WIRING SHALL BE #10 AWG.

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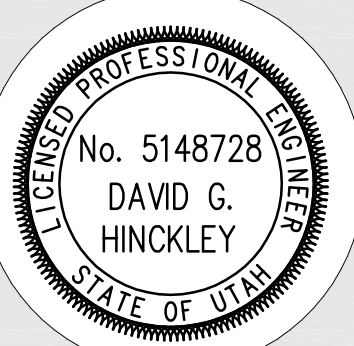
PROJECT NAME & ADDRESS

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CATWALK SYSTEM
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LIGHTING
DFCM #08110730**

Cedar City, Utah

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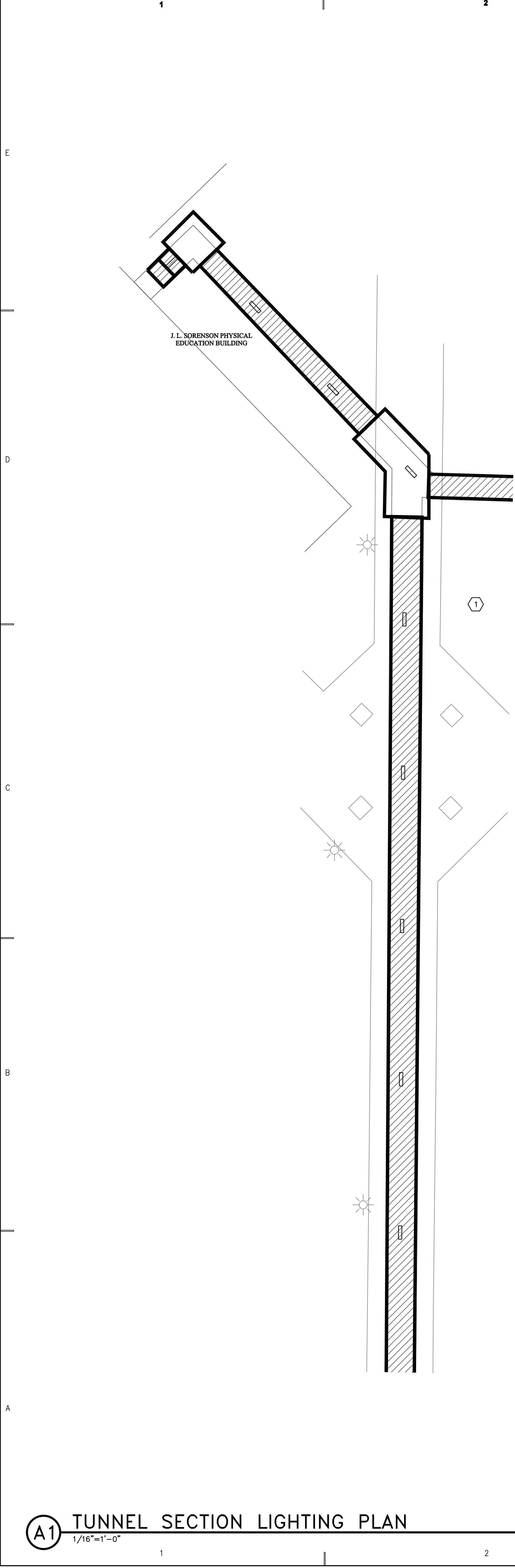


**TUNNEL SECTION
LIGHTING PLANS**

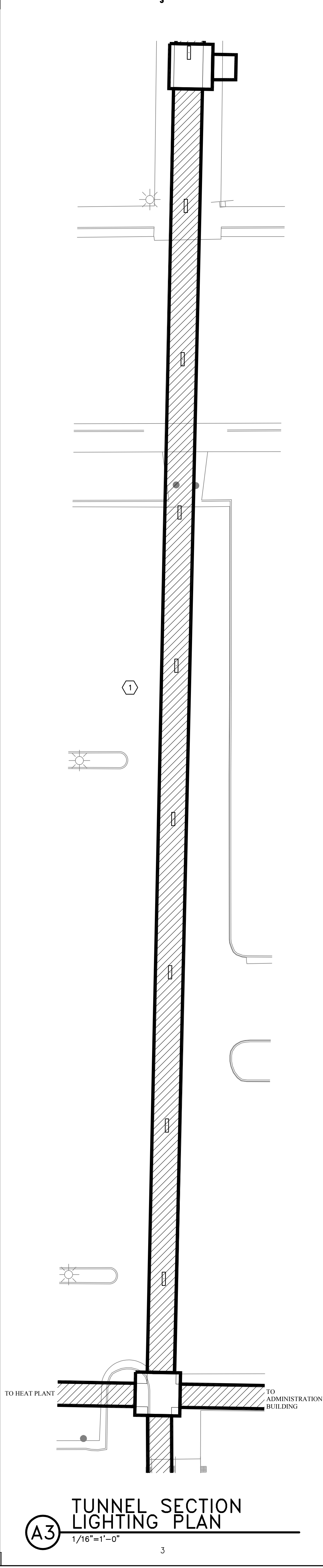
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E-401

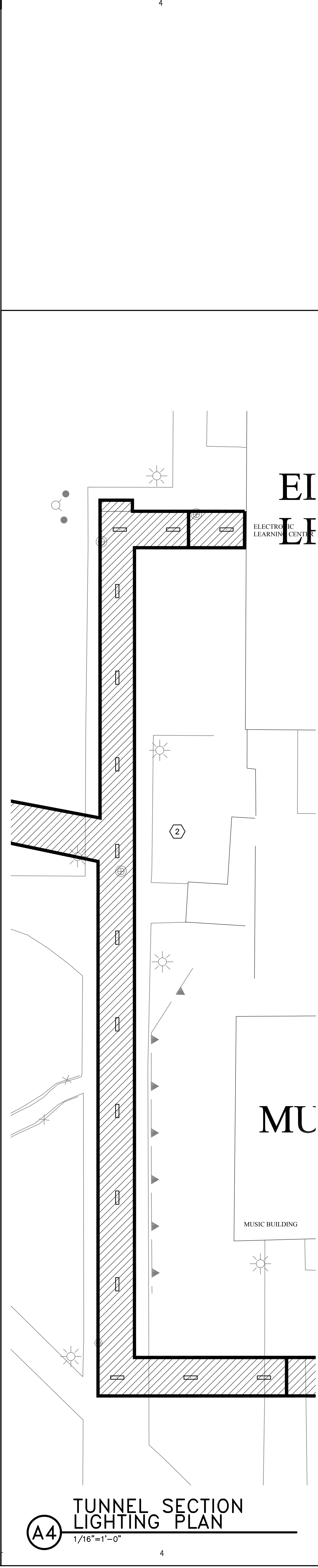
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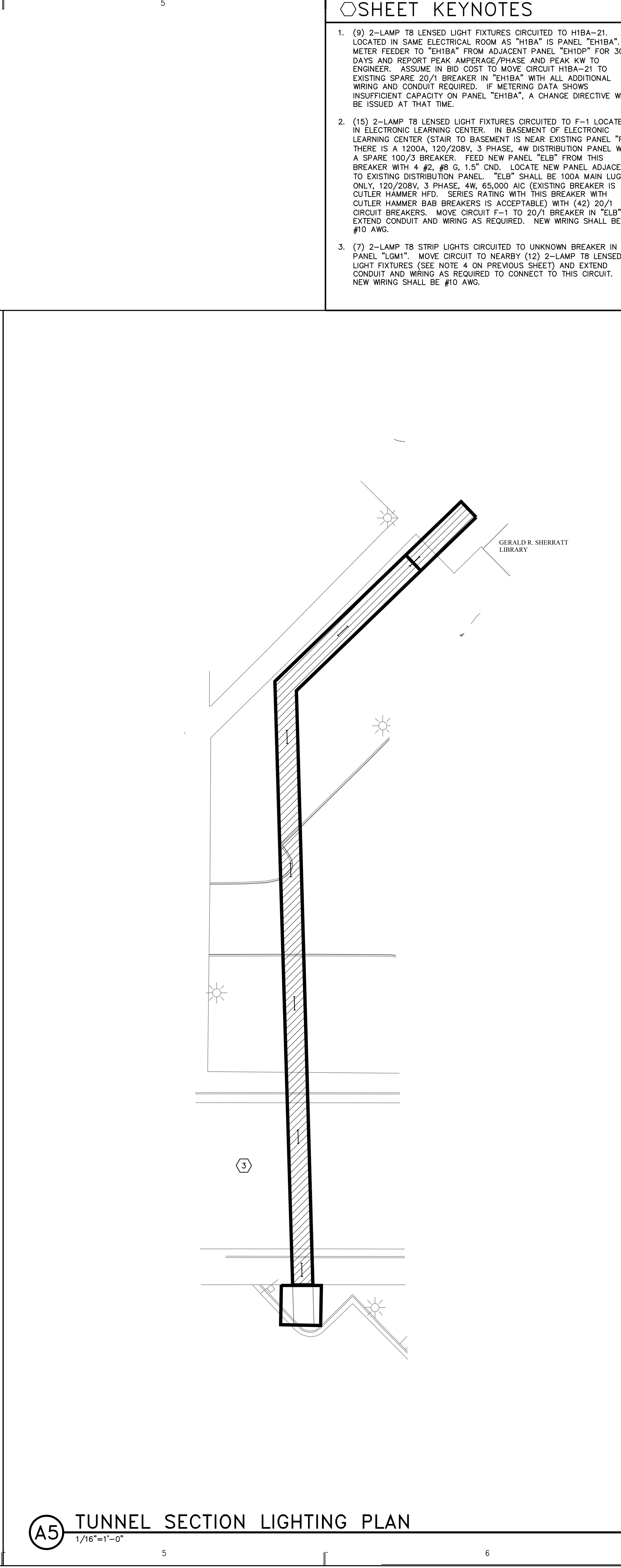
A1 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



A3 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"



A4 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"

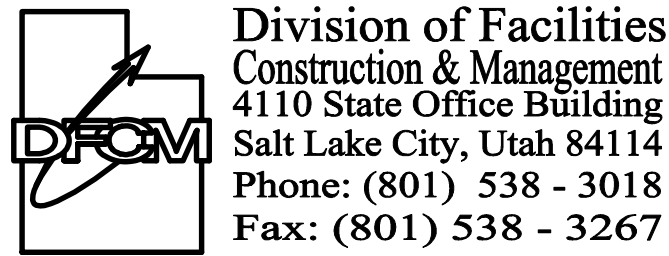


A5 TUNNEL SECTION LIGHTING PLAN
1/16"=1'-0"

SHEET KEYNOTES

- (9) 2-LAMP T8 LENSED LIGHT FIXTURES CIRCUITED TO H1BA-21. LOCATED IN SAME ELECTRICAL ROOM AS "H1BA" IS PANEL "EH1BA". METER FEEDER TO "EH1BA" FROM ADJACENT PANEL "EH1DP" FOR 30 DAYS AND REPORT PEAK AMPERAGE/PHASE AND PEAK KW TO ENGINEER. ASSUME IN BID COST TO MOVE CIRCUIT H1BA-21 TO EXISTING SPARE 20/1 BREAKER IN "EH1BA" WITH ALL ADDITIONAL WIRING AND CONDUIT REQUIRED. IF METERING DATA SHOWS INSUFFICIENT CAPACITY ON PANEL "EH1BA", A CHANGE DIRECTIVE WILL BE ISSUED AT THAT TIME.
- (15) 2-LAMP T8 LENSED LIGHT FIXTURES CIRCUITED TO F-1 LOCATED IN ELECTRONIC LEARNING CENTER. IN BASEMENT OF ELECTRONIC LEARNING CENTER (STAIR TO BASEMENT IS NEAR EXISTING PANEL "F") THERE IS A 1200A, 120/208V, 3 PHASE, 4W DISTRIBUTION PANEL WITH A SPARE 100/3 BREAKER. FEED NEW PANEL "ELB" FROM THIS BREAKER WITH 4 #2, #8 G, 1.5" CND. LOCATE NEW PANEL ADJACENT TO EXISTING DISTRIBUTION PANEL. "ELB" SHALL BE 100A MAIN LUGS ONLY, 120/208V, 3 PHASE, 4W, 65,000 AIC (EXISTING BREAKER IS CUTLER HAMMER HFD. SERIES RATING WITH THIS BREAKER WITH CUTLER HAMMER BAB BREAKERS IS ACCEPTABLE) WITH (42) 20/1 CIRCUIT BREAKERS. MOVE CIRCUIT F-1 TO 20/1 BREAKER IN "ELB" EXTEND CONDUIT AND WIRING AS REQUIRED. NEW WIRING SHALL BE #10 AWG.
- (7) 2-LAMP T8 STRIP LIGHTS CIRCUITED TO UNKNOWN BREAKER IN PANEL "LGM1". MOVE CIRCUIT TO NEARBY (12) 2-LAMP T8 LENSED LIGHT FIXTURES (SEE NOTE 4 ON PREVIOUS SHEET) AND EXTEND CONDUIT AND WIRING AS REQUIRED TO CONNECT TO THIS CIRCUIT. NEW WIRING SHALL BE #10 AWG.

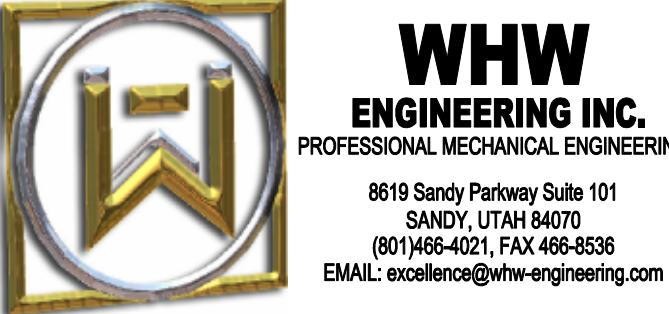
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SHEET TITLE
**STEAM TUNNEL
ENLARGED ELECTRICAL
PLANS**

SHEET NO.
E-402